

PRELIMINARY REPORT OF 050814

last update on Sun Aug 14 10:50:01 GMT 2005

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1 - Introduction

This report is based on the analysis of wave mode level-1 cross spectra (ASA_WVS_1P), global monitoring products (ASA_GM1_1P), which are the available few hours after the acquisition, on the browse (BP) products and on the Module Stepping (MS) product.

2 - Summary

2.1 - Instrument Unavailability

No unavailabilities during the reported period.

2.2 - Auxiliary files

Summary of the auxiliary files used from 2005-08-13 00:00:00 to 2005-08-14 10:50:01

PDHS-K					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM

ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	21	44	15	4	0
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	21	44	15	4	0
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	21	44	15	4	0
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	21	44	15	4	0

PDHS-E					
AUXILIARY FILE	WVS	GM1	IMM	APM	WSM
ASA_CON_AXVIEC20050324_172815_20030601_000000_20051231_000000	39	49	37	13	25
ASA_INS_AXVIEC20041215_180208_20030211_000000_20051231_000000	39	49	37	13	25
ASA_XCA_AXVIEC20050803_152145_20040412_000000_20051231_000000	39	49	37	13	25
ASA_XCH_AXVIEC20041215_180350_20020301_000000_20051231_000000	39	49	37	13	25

2.3 - Browse Visual Inspection

2.4 - Data Analysis

- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

3 - Module Stepping Mode

No anomalies observed on available MS products:

Polarisation	Start Time
V	20050813 204908
H	20050812 143821

MSM in V/V polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
☒	☒
☒	☒
☒	☒
☒	☒

MSM in H/H polarisation

Pre-launch Reference	DDS-B (2003-06-12) reference
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

4 - Internal calibration Results

No anomalies observed.

4.1 - Daily statistics

4.1.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>
<input type="checkbox"/>

4.1.2 - Evolution for GM1

Evolution of cal pulses for GM1
<input type="checkbox"/>
<input type="checkbox"/>

4.2 - Cyclic statistics

4.2.1 - Evolution for WVS

Evolution of cal pulses for WVS
<input type="checkbox"/>

P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-3.317742	0.026354	-0.001638
7	P1	-3.157600	0.027076	-0.059591
11	P1	-4.711680	0.033099	-0.030844
15	P1	-5.592178	0.051150	-0.067956
19	P1	-3.797718	0.004203	-0.048213
22	P1	-4.638201	0.093153	0.012768
26	P1	-4.848999	0.122308	0.041823
30	P1	-7.243434	0.124920	0.011093
3	P1	-15.549377	0.077249	0.073013
7	P1	-15.520859	0.147092	-0.024409
11	P1	-21.743168	0.264929	-0.183977
15	P1	-11.294209	0.067882	-0.004135
19	P1	-14.491804	0.036303	-0.056432
22	P1	-15.692333	0.344296	0.168592
26	P1	-17.349123	0.199394	0.199087
30	P1	-17.774126	0.398864	-0.170604

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-21.815981	0.083228	0.093794
7	P2	-21.974216	0.100018	0.112055
11	P2	-13.565824	0.106010	0.188645
15	P2	-7.070451	0.090966	0.023483
19	P2	-9.590259	0.094148	-0.016065
22	P2	-16.838100	0.095990	0.041254
26	P2	-16.509346	0.097296	-0.017171
30	P2	-18.797890	0.085988	-0.029467

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-8.157563	0.002555	-0.006797
7	P3	-8.157563	0.002555	-0.006797
11	P3	-8.157563	0.002555	-0.006797
15	P3	-8.157563	0.002555	-0.006797
19	P3	-8.157563	0.002555	-0.006797
22	P3	-8.157563	0.002555	-0.006797
26	P3	-8.157563	0.002555	-0.006797
30	P3	-8.157563	0.002555	-0.006797

4.2.2 - Evolution for GM1

Evolution of cal pulses for GM1



P1a Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
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P1 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P1	-2.805841	0.088712	-0.068399
7	P1	-2.972131	0.056655	-0.044678
11	P1	-4.012989	0.016242	-0.050565
15	P1	-3.613490	0.058741	-0.098380
19	P1	-3.632432	0.015590	0.009865
22	P1	-5.692472	0.098749	-0.026737
26	P1	-7.394348	0.166327	0.039956
30	P1	-6.327429	0.097339	0.047590
3	P1	-10.893231	0.052230	-0.206260
7	P1	-10.470253	0.164906	-0.042894
11	P1	-12.641492	0.103241	-0.043898
15	P1	-11.602114	0.096791	0.011853
19	P1	-15.505749	0.067396	0.105381
22	P1	-25.629086	2.852692	0.230720
26	P1	-15.306668	0.310363	0.184586
30	P1	-20.059963	1.265983	-0.065950

P2 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P2	-17.549170	0.044161	0.142237
7	P2	-22.024771	0.038336	0.045245
11	P2	-9.603657	0.063792	0.179765
15	P2	-5.107981	0.041310	0.033654
19	P2	-6.888179	0.062074	0.044072
22	P2	-7.060164	0.037284	0.039597
26	P2	-23.967541	0.037506	0.014976
30	P2	-21.950293	0.042546	0.009270

P3 Cyclic statistics

row	pulse	mean (dB)	stdev (dB)	slope(dB/cycle)
3	P3	-7.999273	0.004015	-0.003720
7	P3	-7.999160	0.004002	-0.003916
11	P3	-7.999143	0.004017	-0.004040
15	P3	-7.999088	0.004013	-0.003725
19	P3	-7.999175	0.004013	-0.003669
22	P3	-7.999162	0.004005	-0.003466
26	P3	-7.999104	0.003996	-0.003523
30	P3	-7.999105	0.003996	-0.003801

4.3 - cal pulses monitoring (all rows)

4.3.1 - Evolution for WVS



4.3.2 - Evolution for GM1



5 - RAW data statistics

No anomalies observed.

5.1 - Input mean I/Q

channel	stat	DSS-B
MEAN I	mean	0.000458089
	stdev	2.22445e-07
MEAN Q	mean	0.000488264
	stdev	2.34928e-07



5.2 - Input stdev I/Q

channel	stat	DSS-B
STDEV I	mean	0.127968
	stdev	0.000996604
STDEV Q	mean	0.128225
	stdev	0.00100680



5.3 - Gain imbalance I/Q



6 - Telemetry analysis

Summary of analysis for the last 3 days 2005081[234]

The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050812_004347_000001572039_00446_18035_2259.N1	1	0
ASA_WSM_1PNPDE20050812_014214_000000612039_00446_18035_4254.N1	0	1
ASA_WSM_1PNPDE20050813_162408_000000912039_00470_18059_4387.N1	0	42







7 - Doppler Analysis

Preliminary report. The data is not yet controlled



7.1 - Unbiased Doppler Error for WVS

Evolution of unbiased Doppler error (Real - Expected)


Ascending

Descending

7.2 - Absolute Doppler for WVS

Evolution of Absolute Doppler


Ascending

Descending



7.3 - Doppler evolution versus ANX for WVS

Evolution Doppler error versus ANX



7.4 - Unbiased Doppler Error for GM1

Evolution of unbiased Doppler error (Real - Expected)


Ascending


Descending

7.5 - Absolute Doppler for GM1

Evolution of Absolute Doppler

✘

Ascending

✘

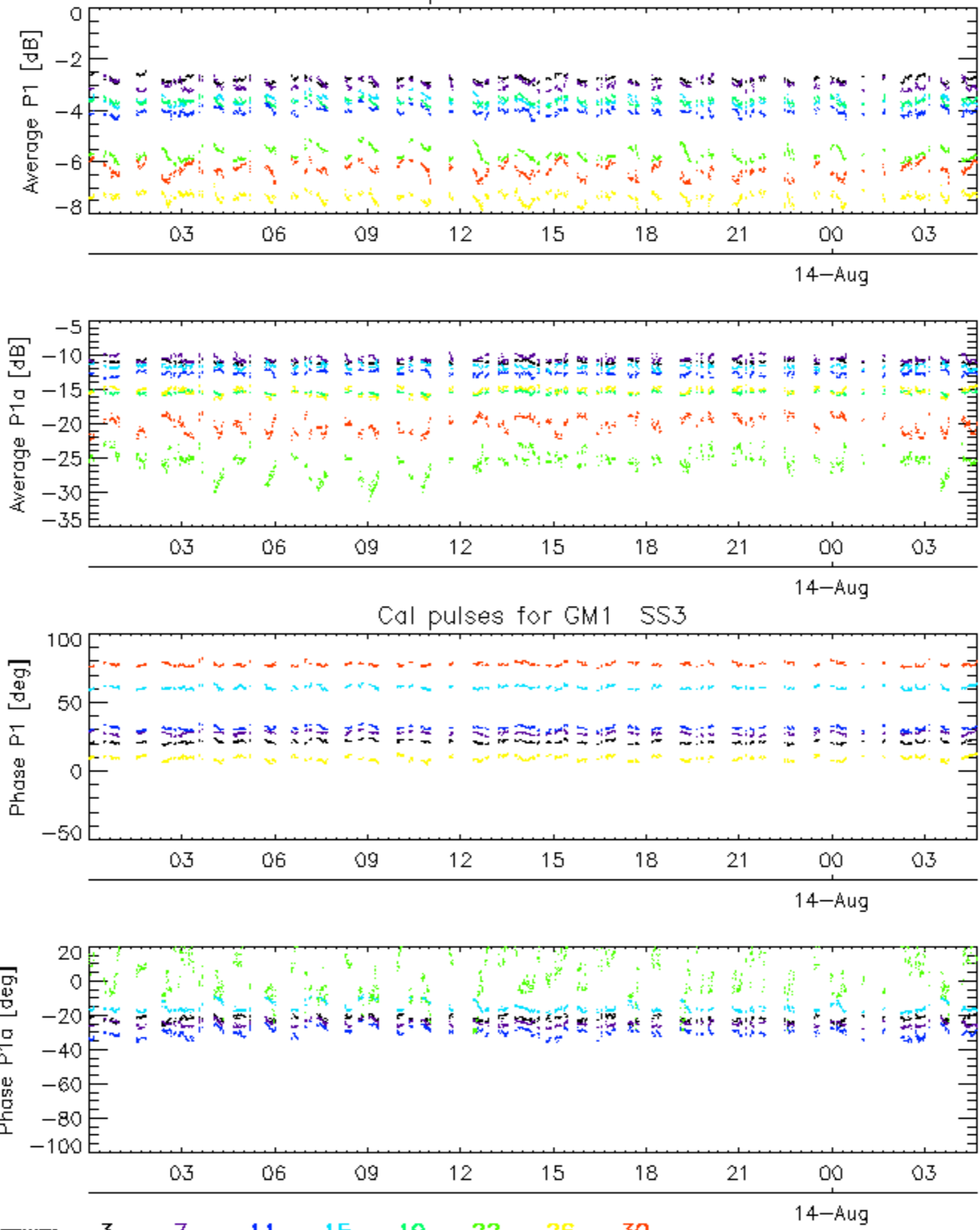
Descending

7.6 - Doppler evolution versus ANX for GM1

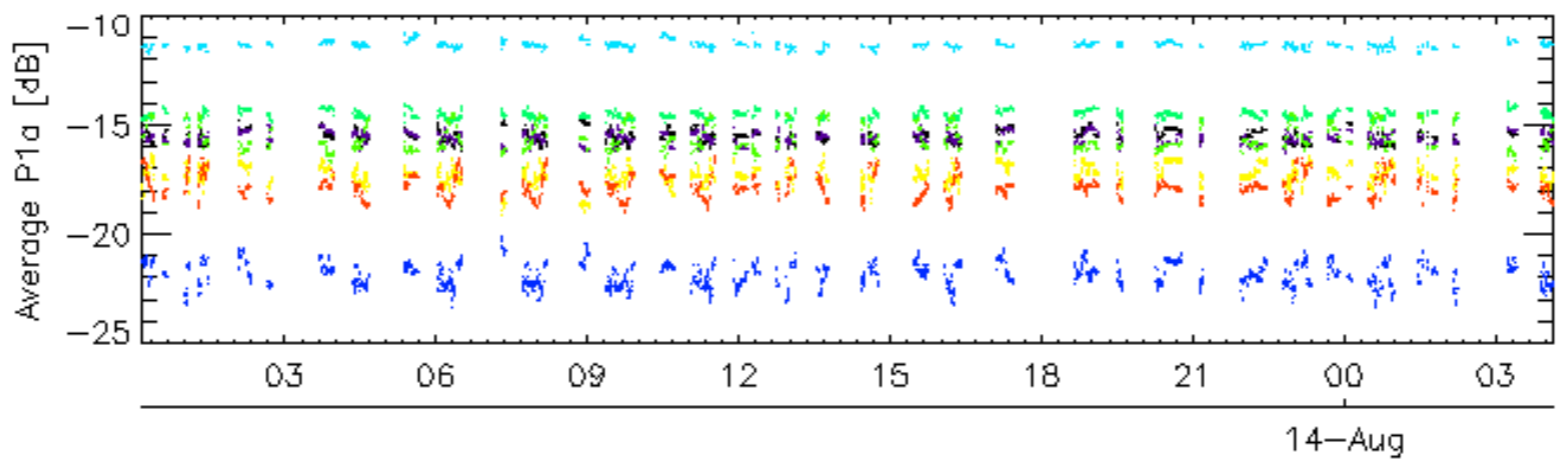
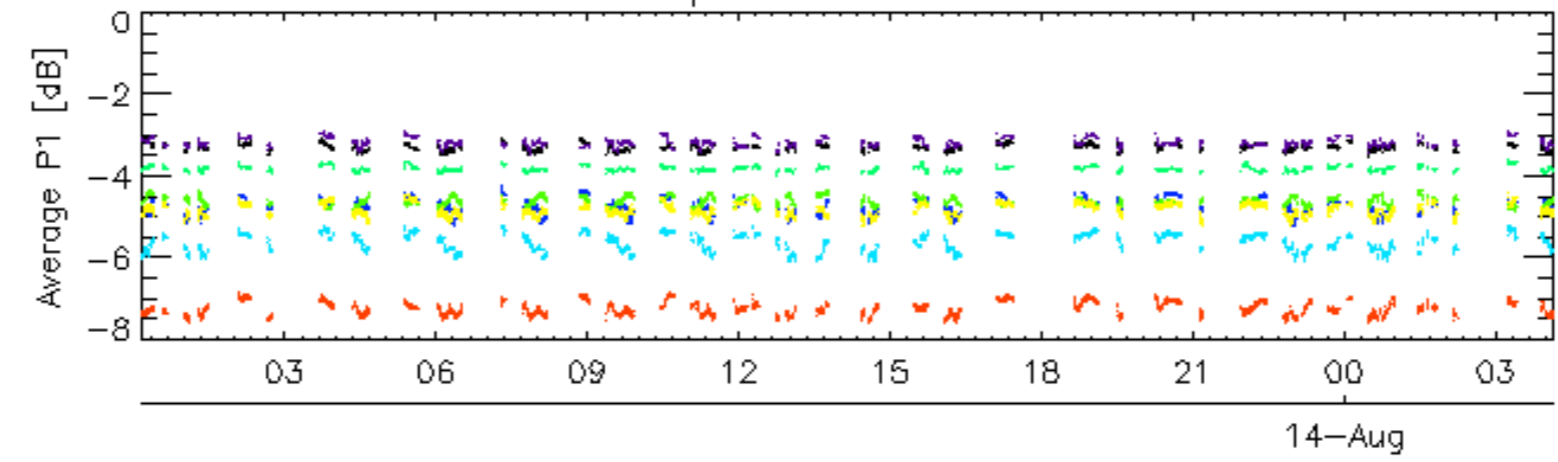
Evolution Doppler error versus ANX

✘

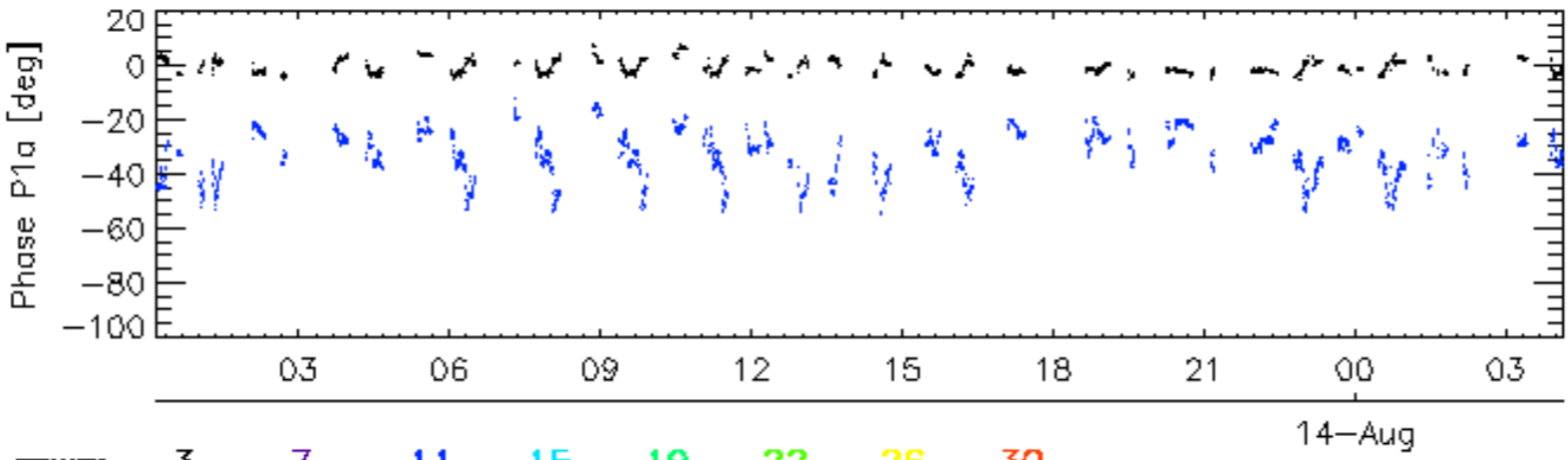
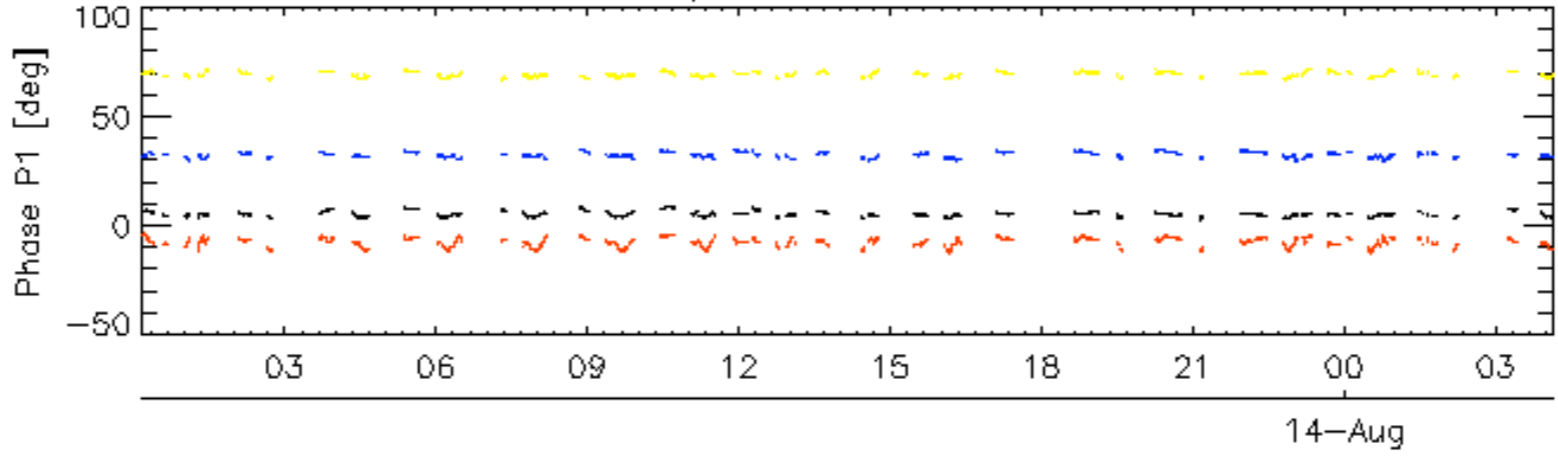
Cal pulses for GM1 SS3



Cal pulses for WVS IS2

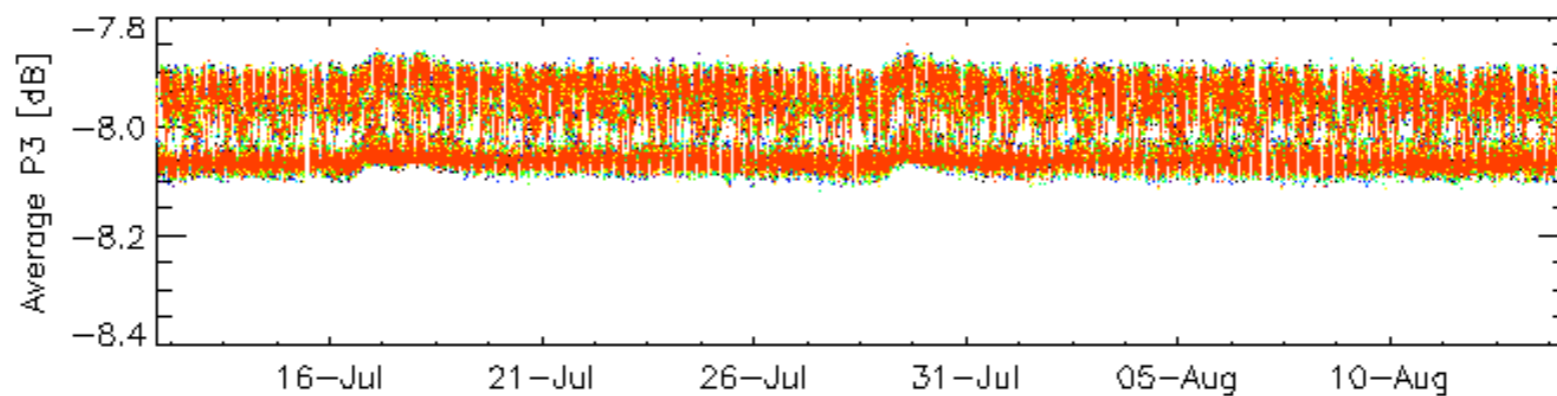
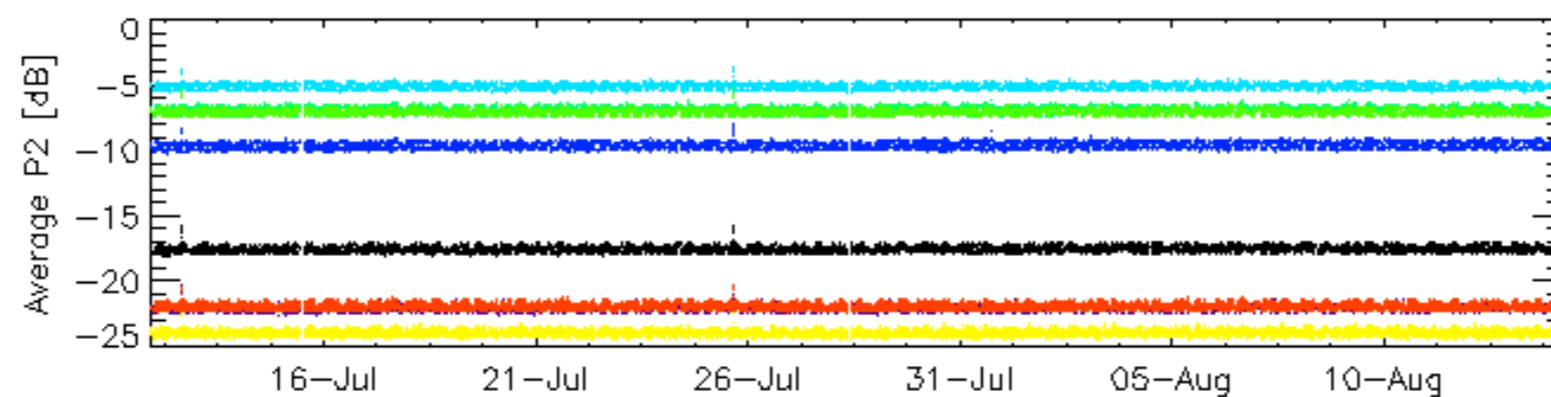
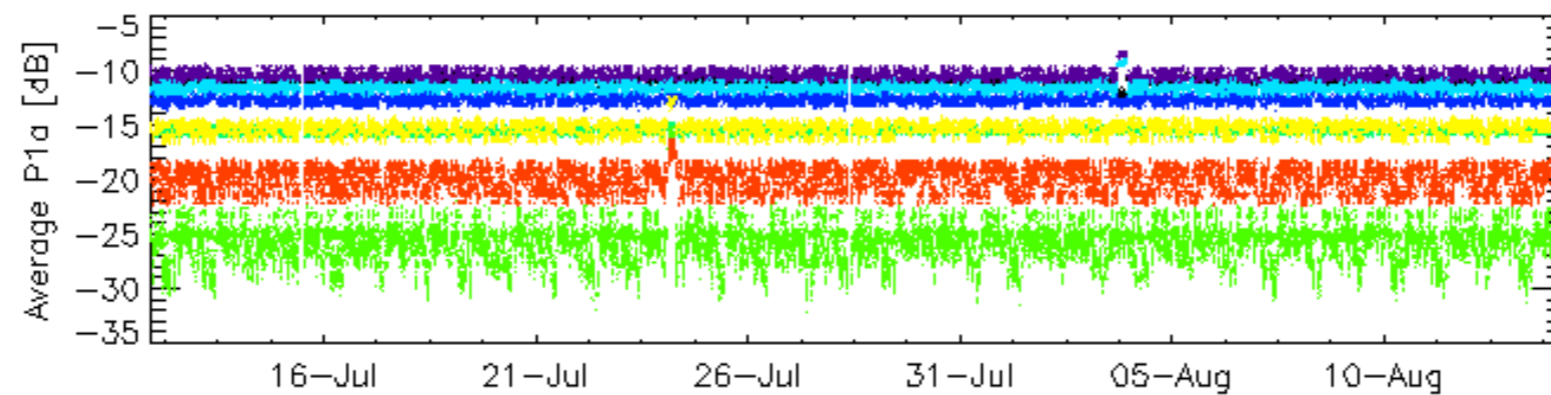
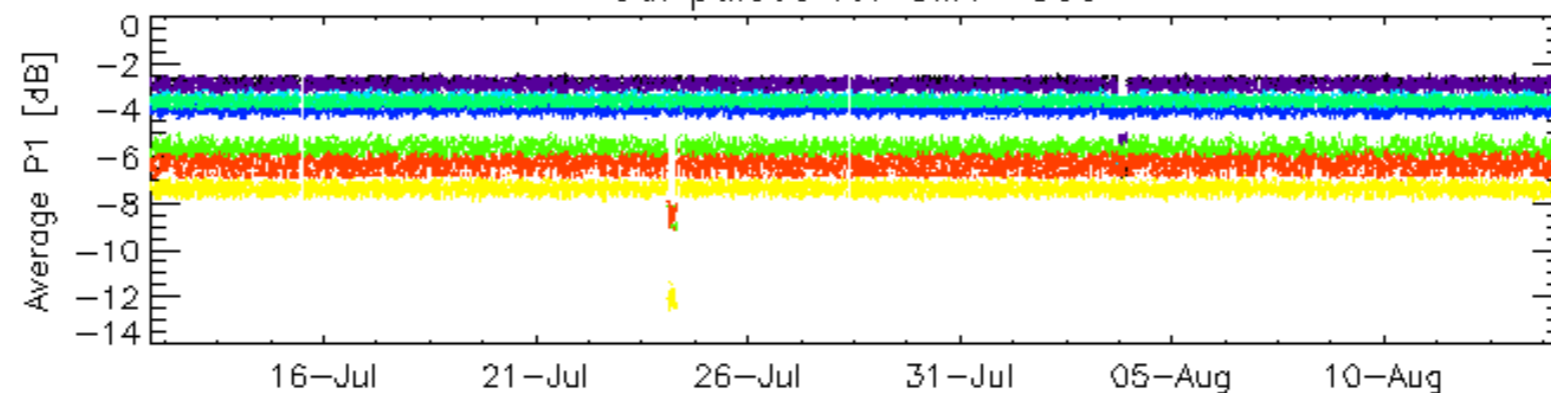


Cal pulses for WVS IS2



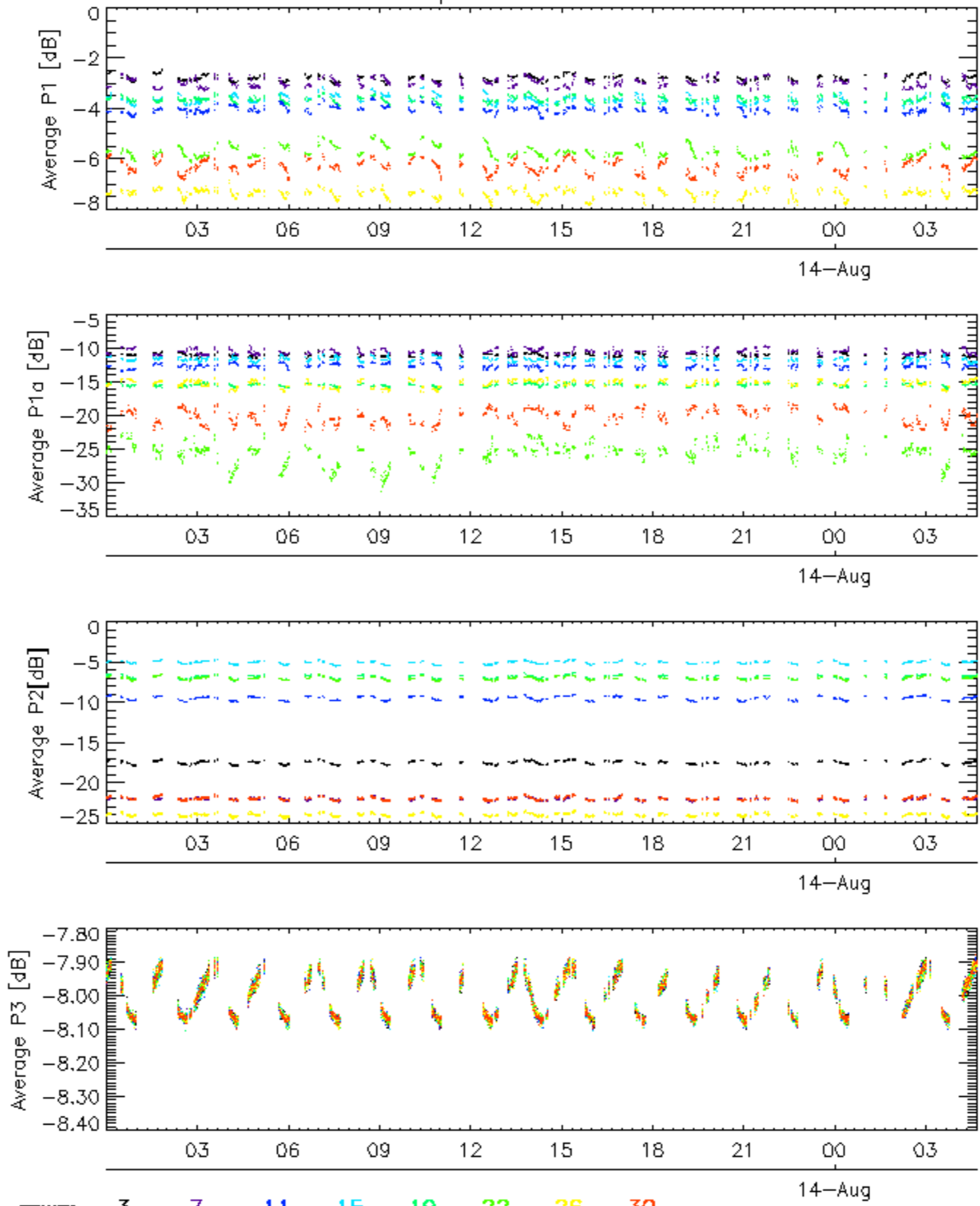
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

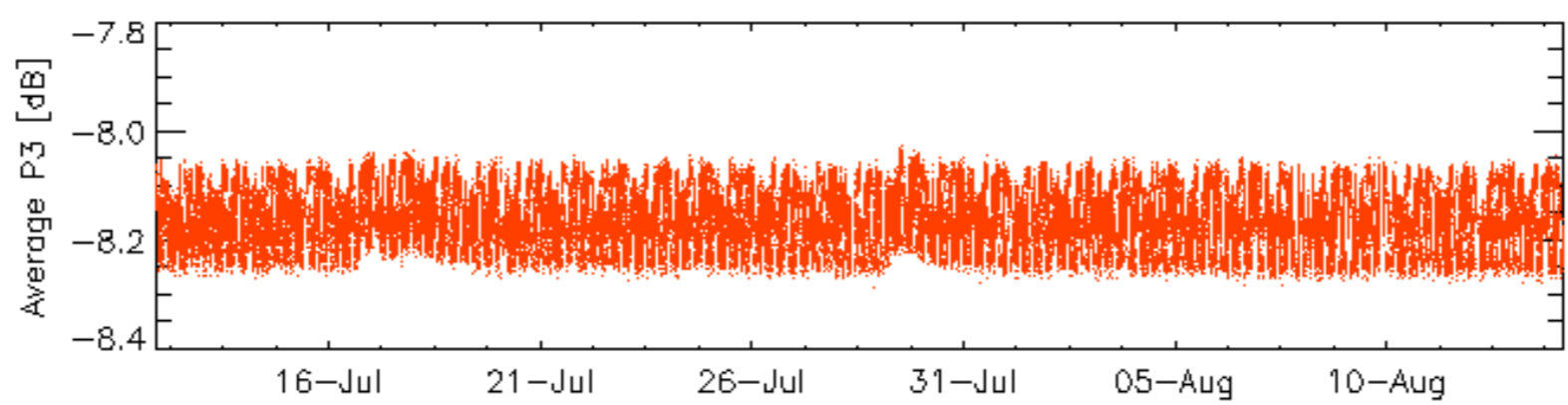
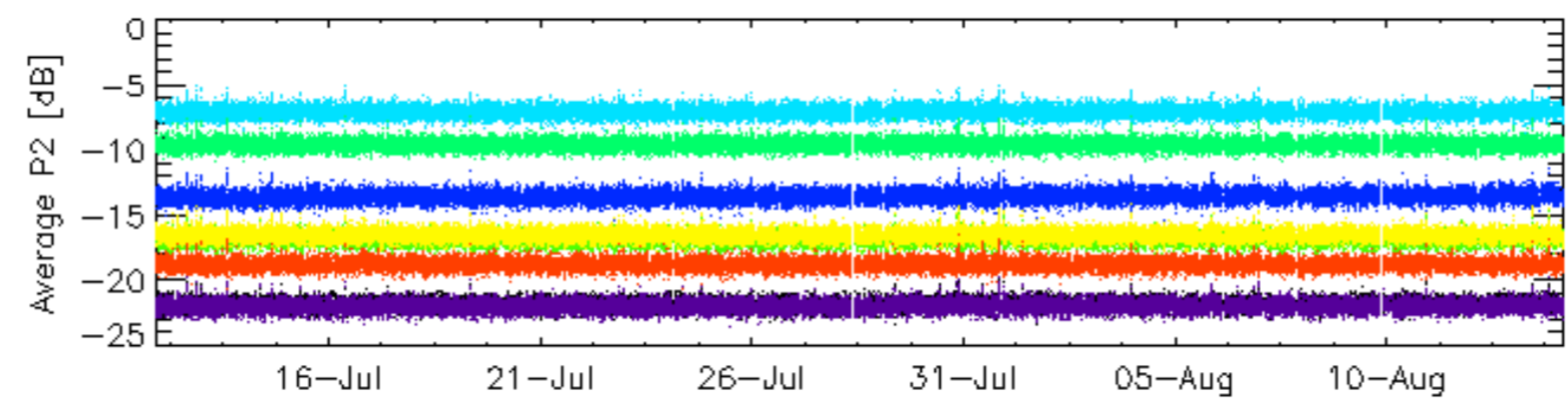
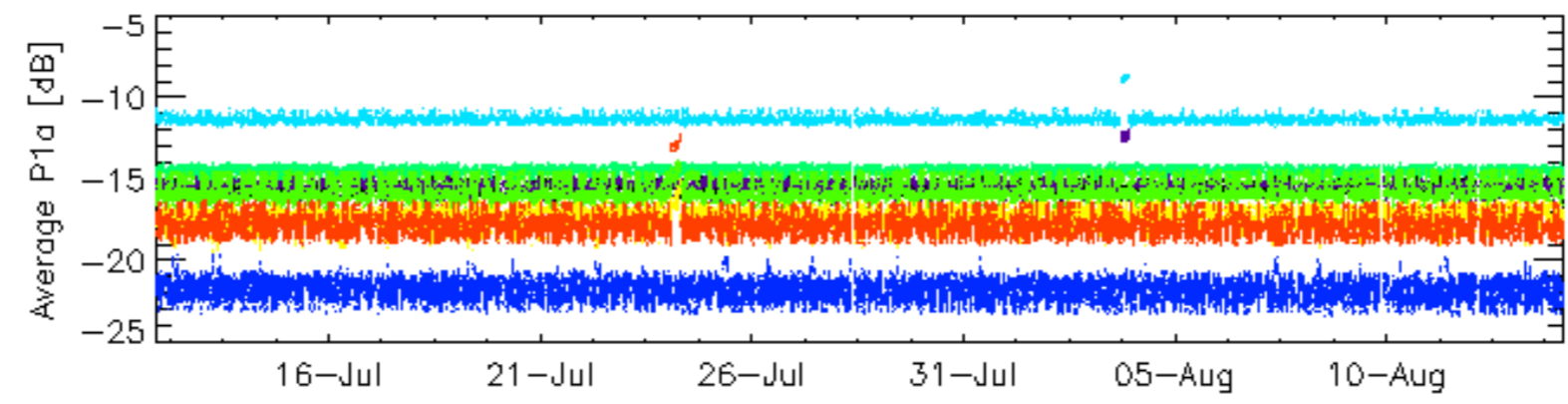
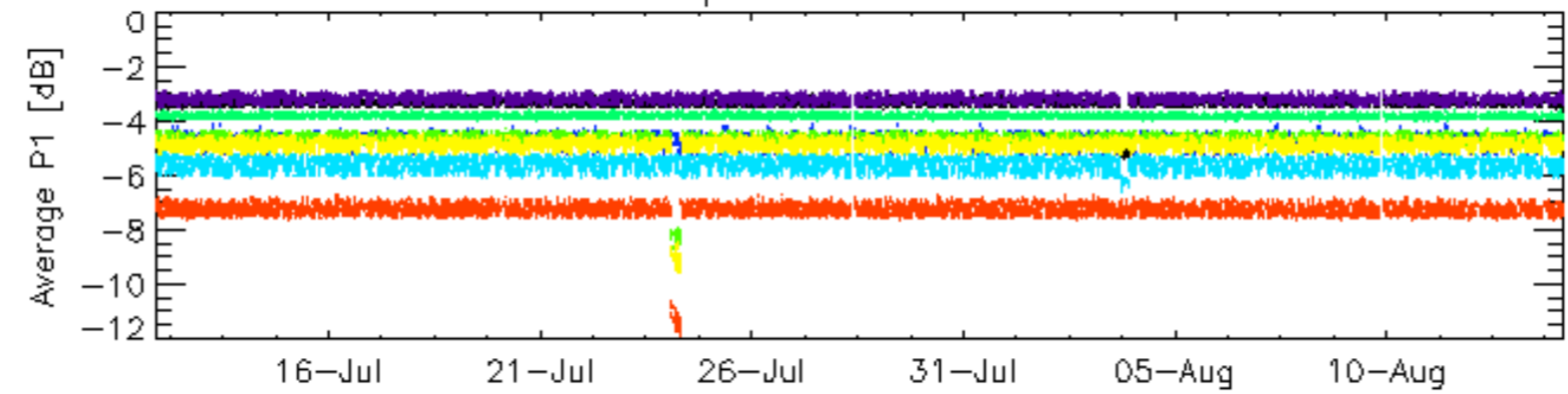


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for GM1 SS3

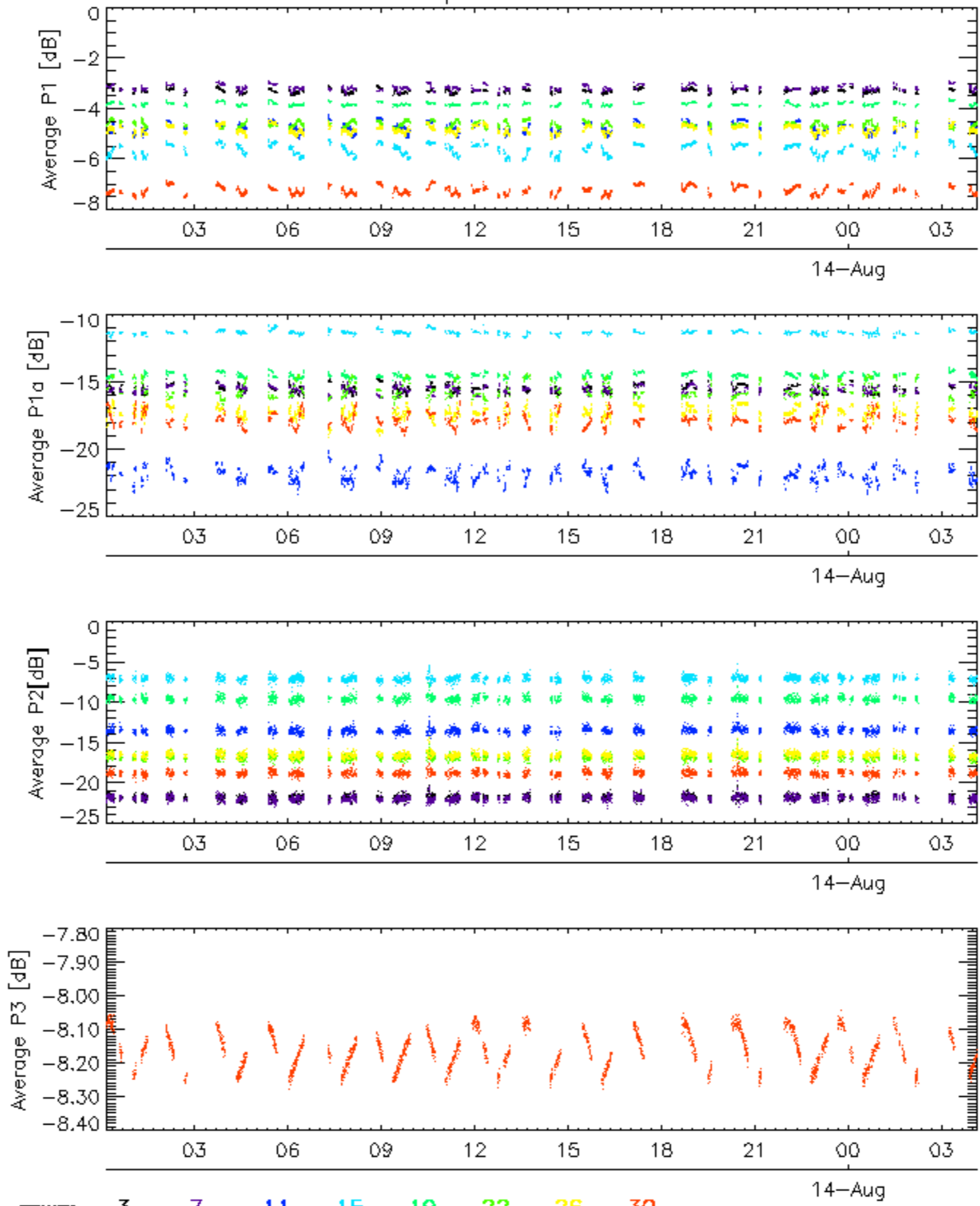


Cal pulses for WVS IS2

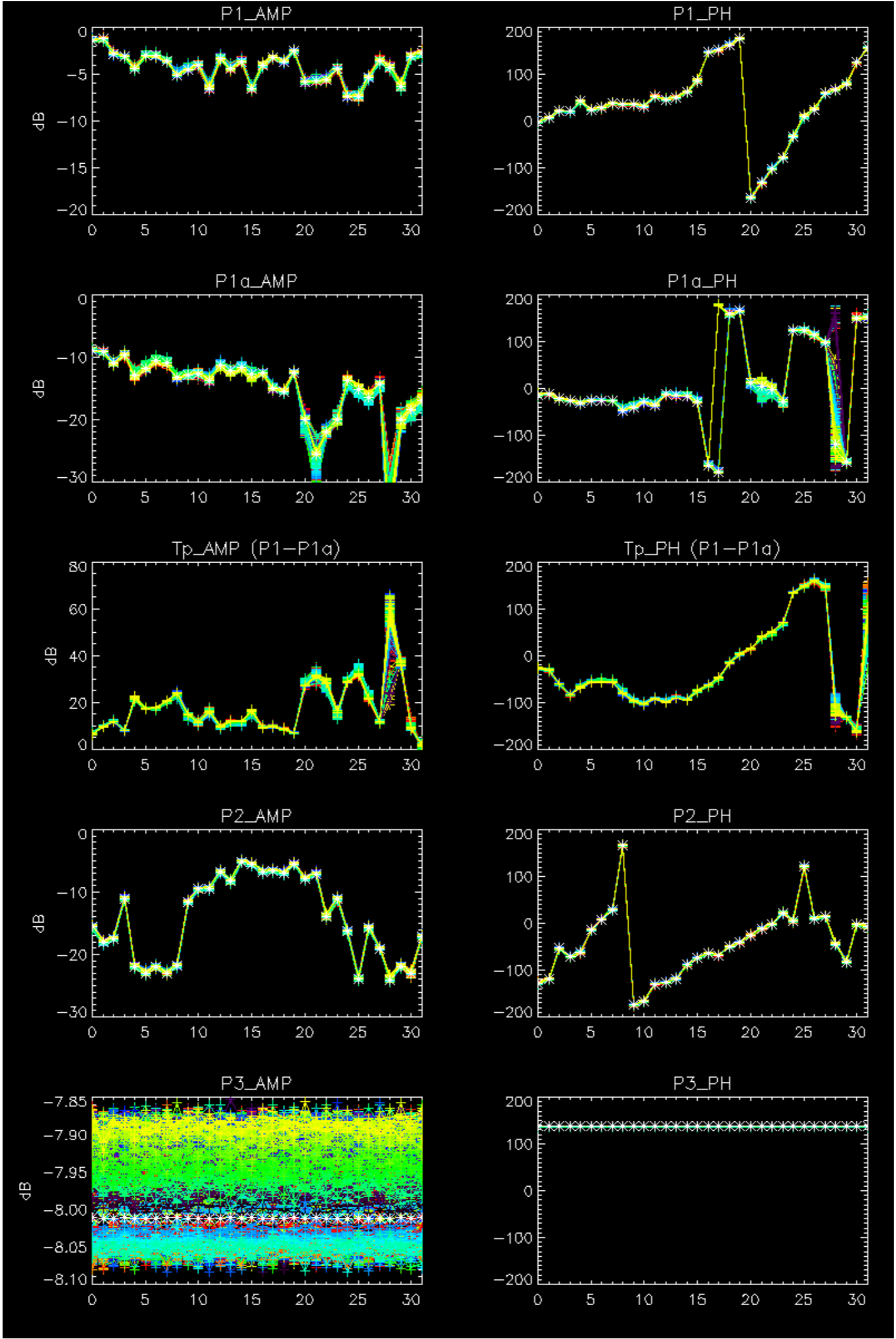


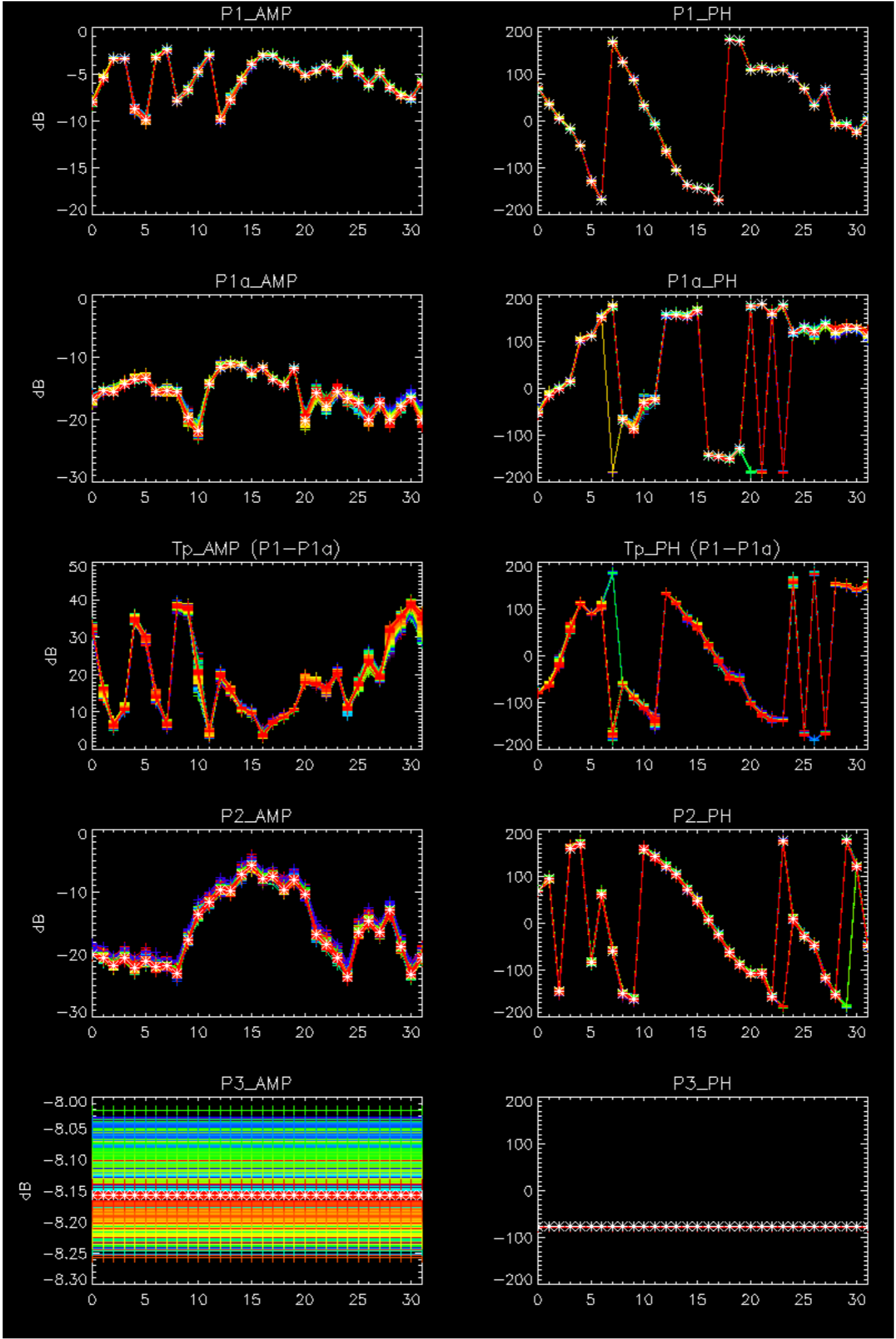
rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30

Cal pulses for WVS IS2



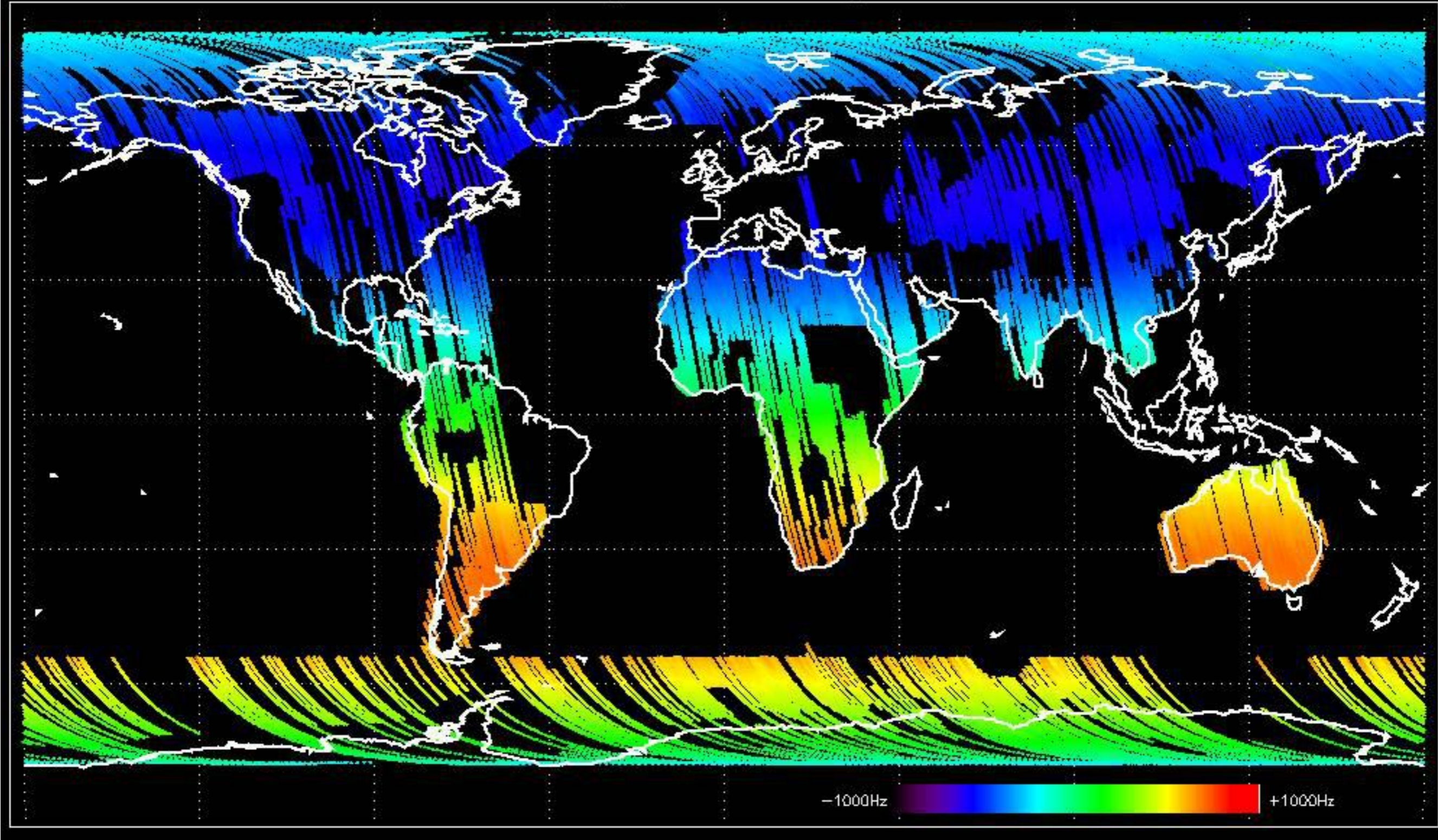
No anomalies observed.



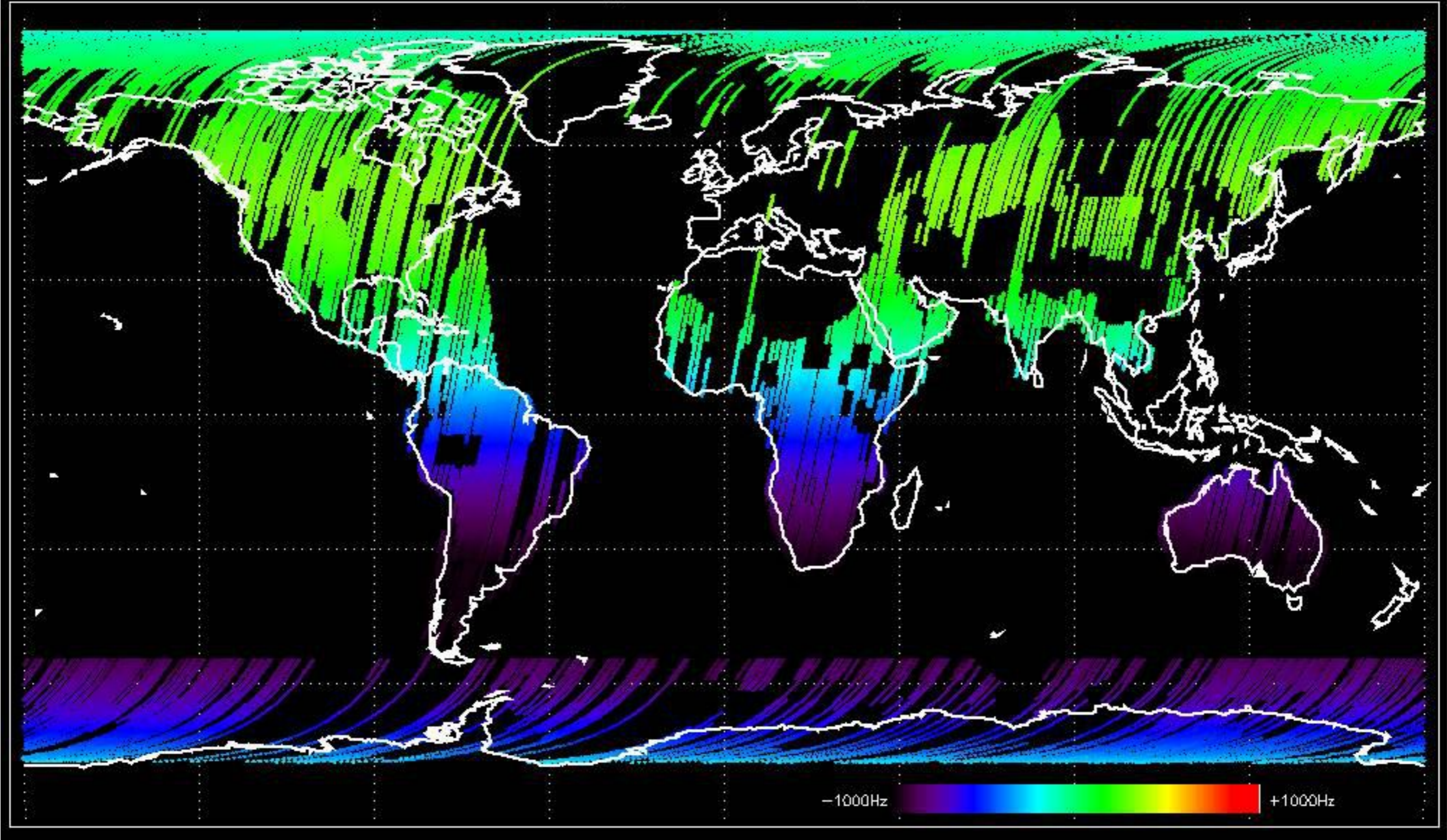


- Stable wave internal calibration pulses gain and phase.
- Stable raw data statistics.
- Nominal Doppler behavior.

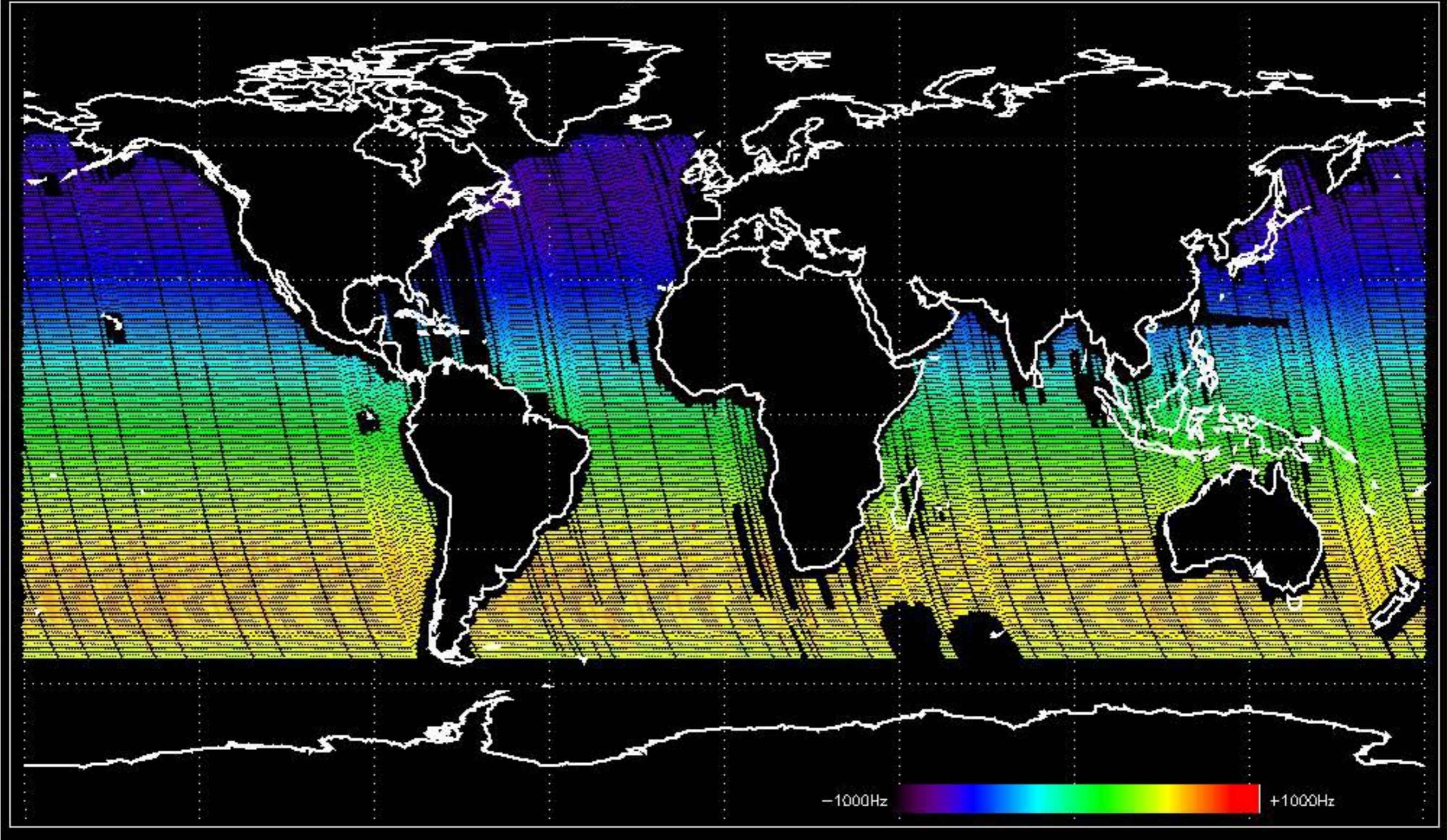
Doppler 'GM1' 'SS1' ascending



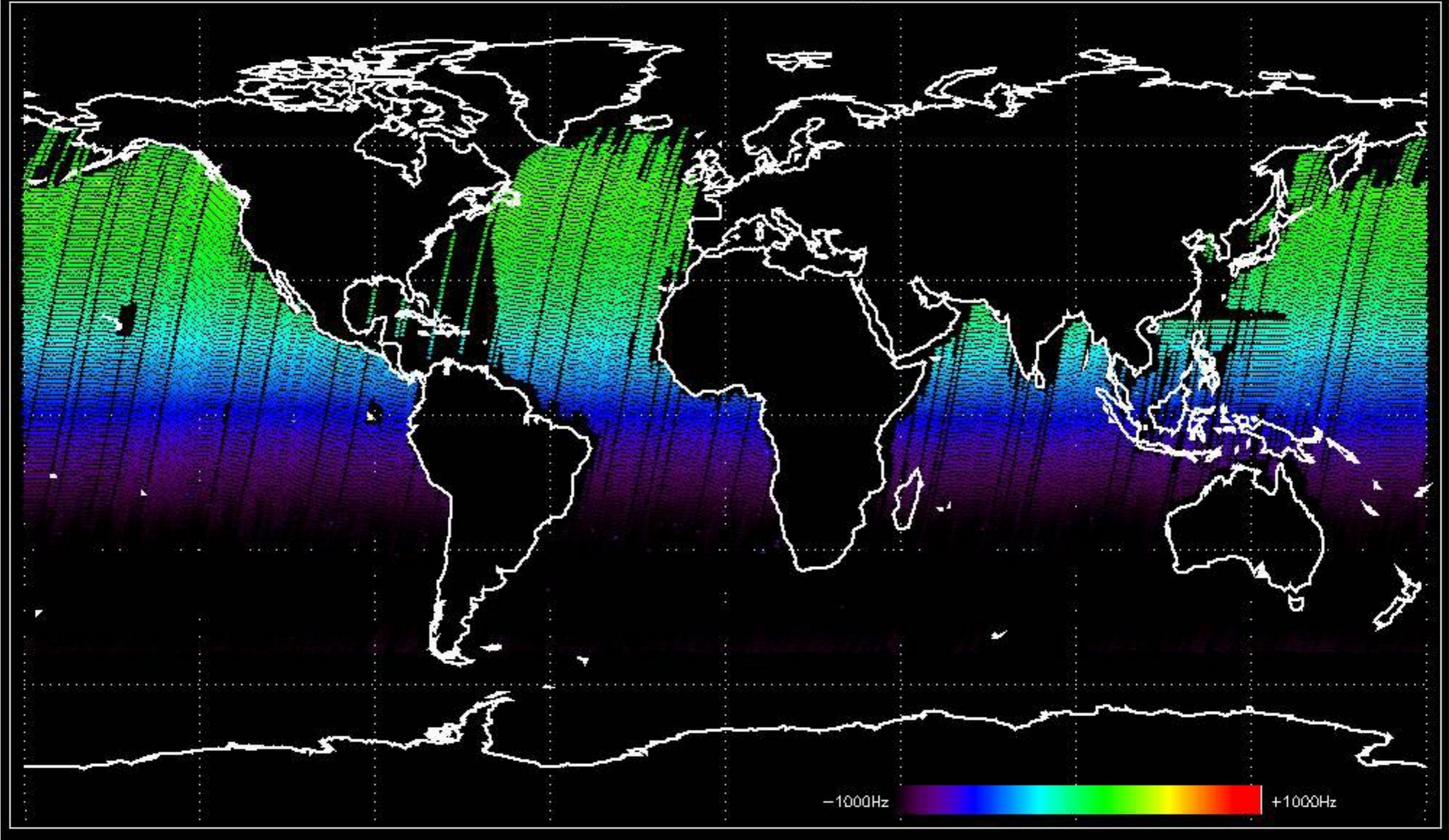
Doppler 'GM1' 'SS1' descending

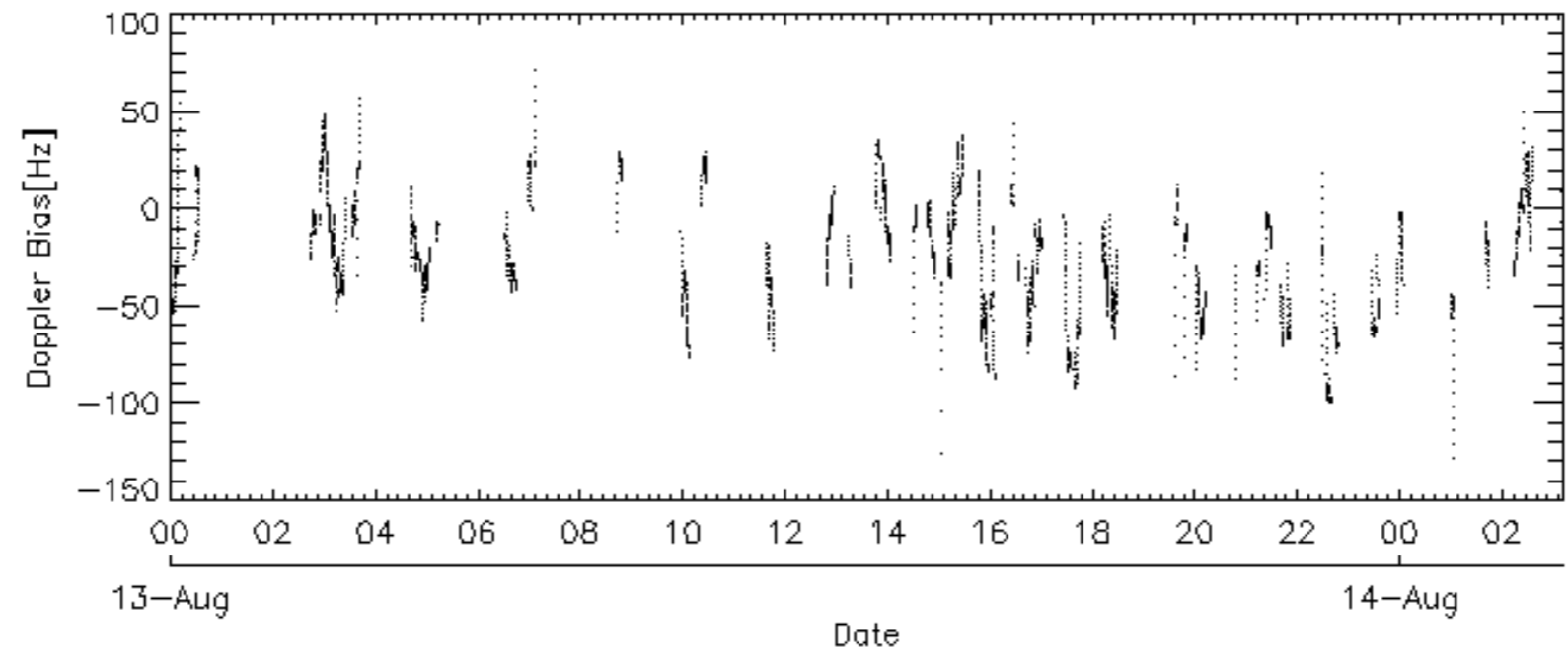
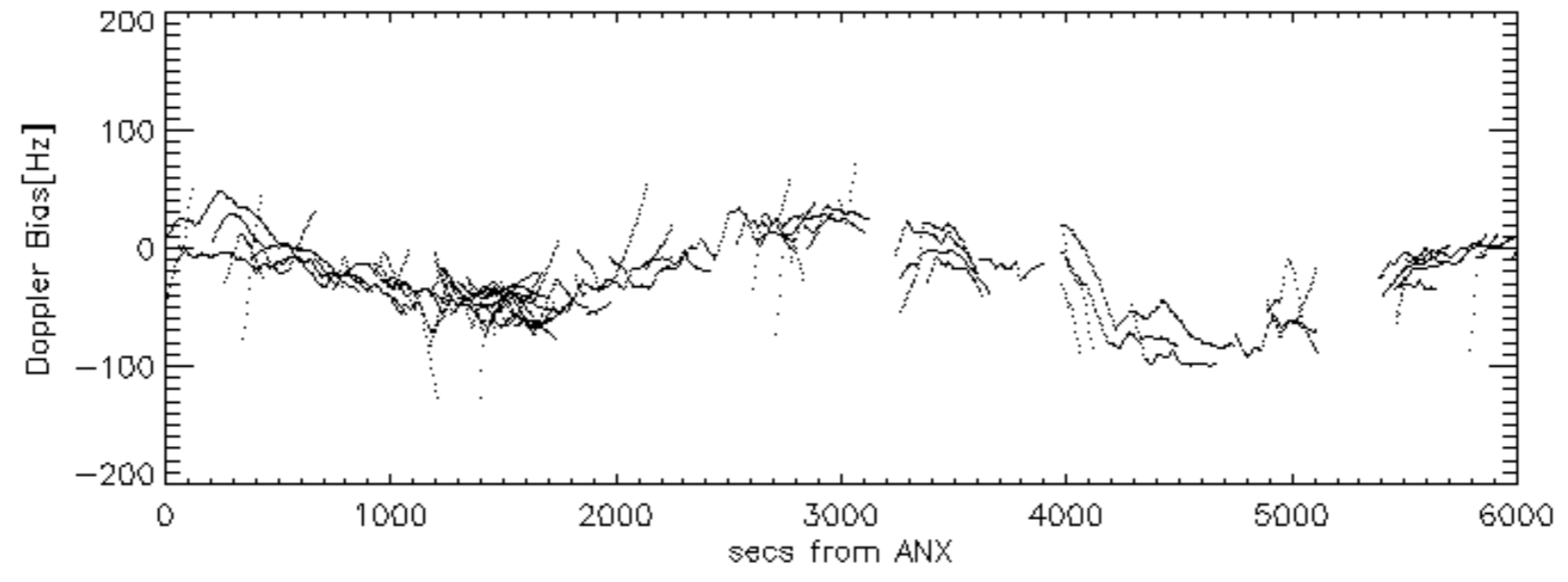
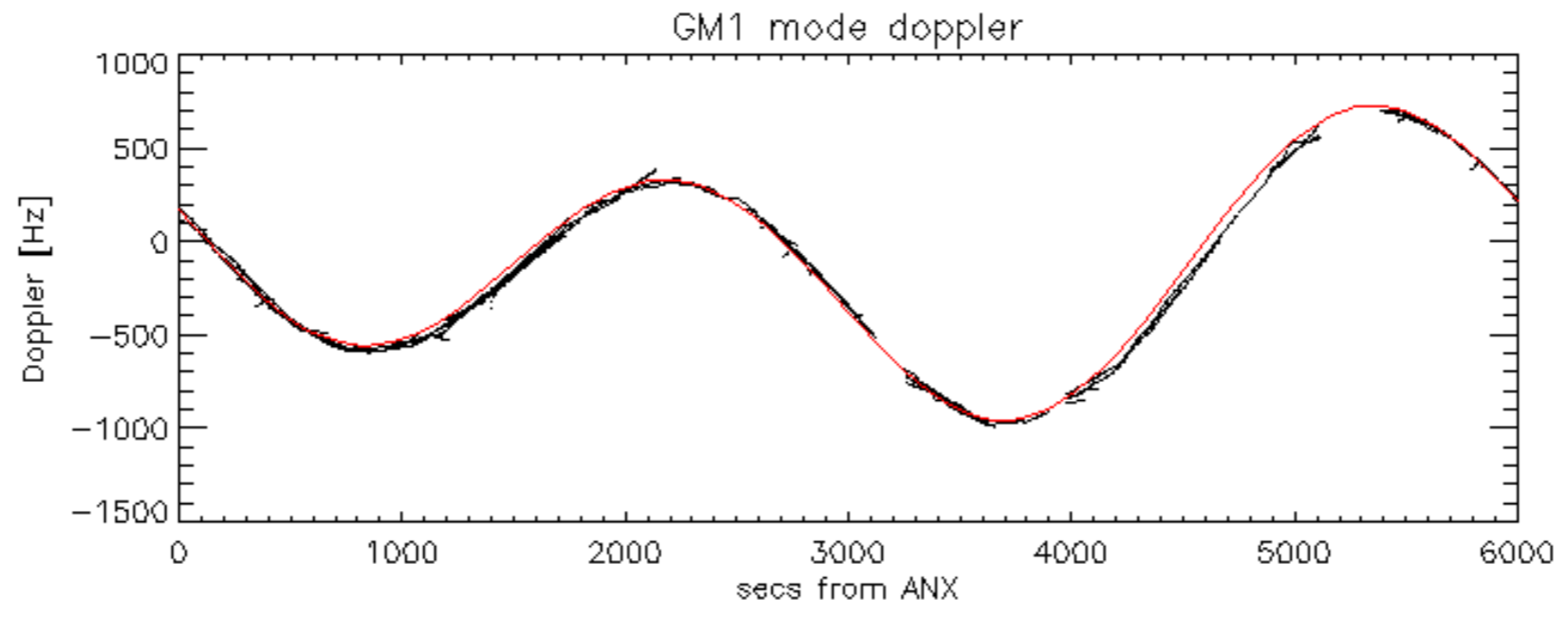


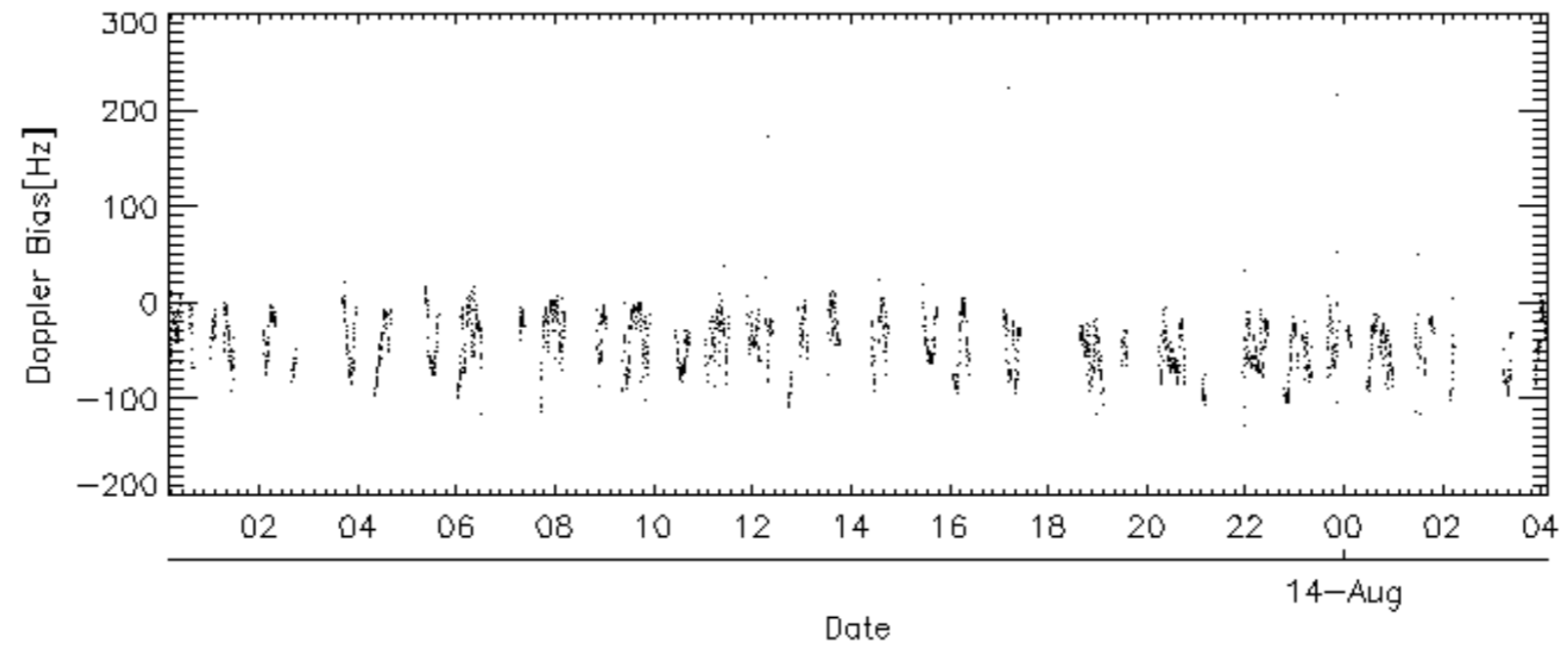
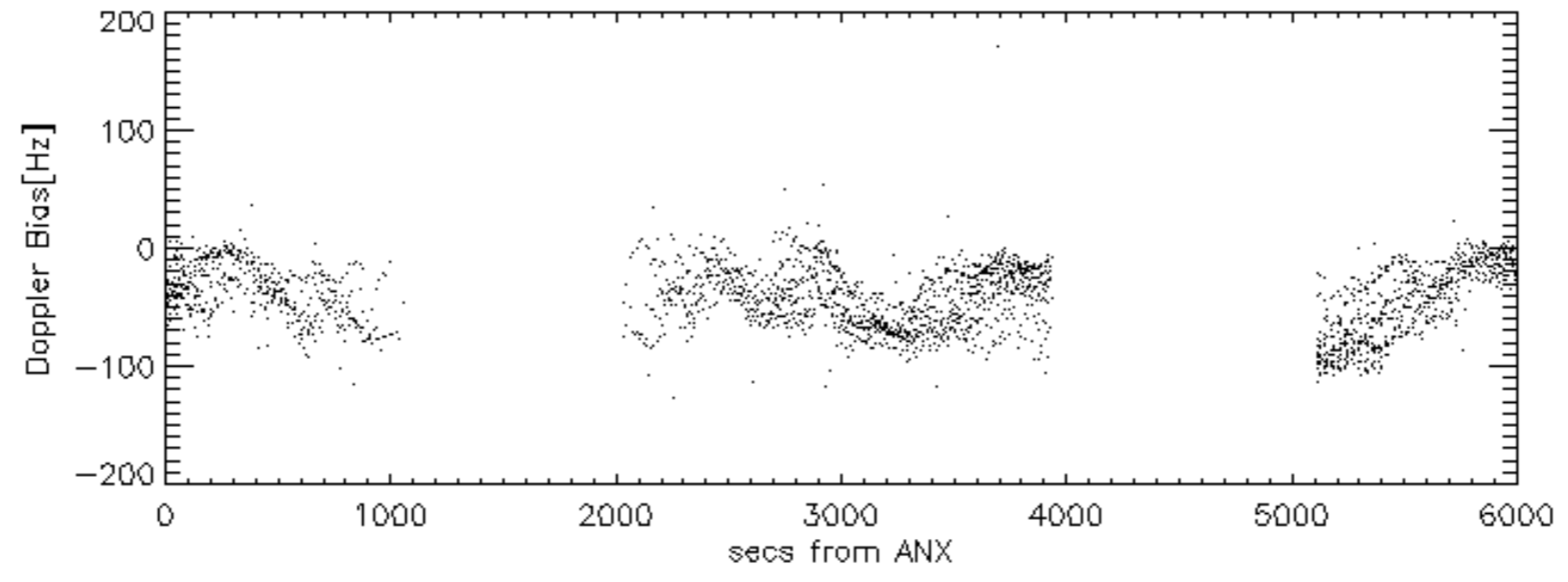
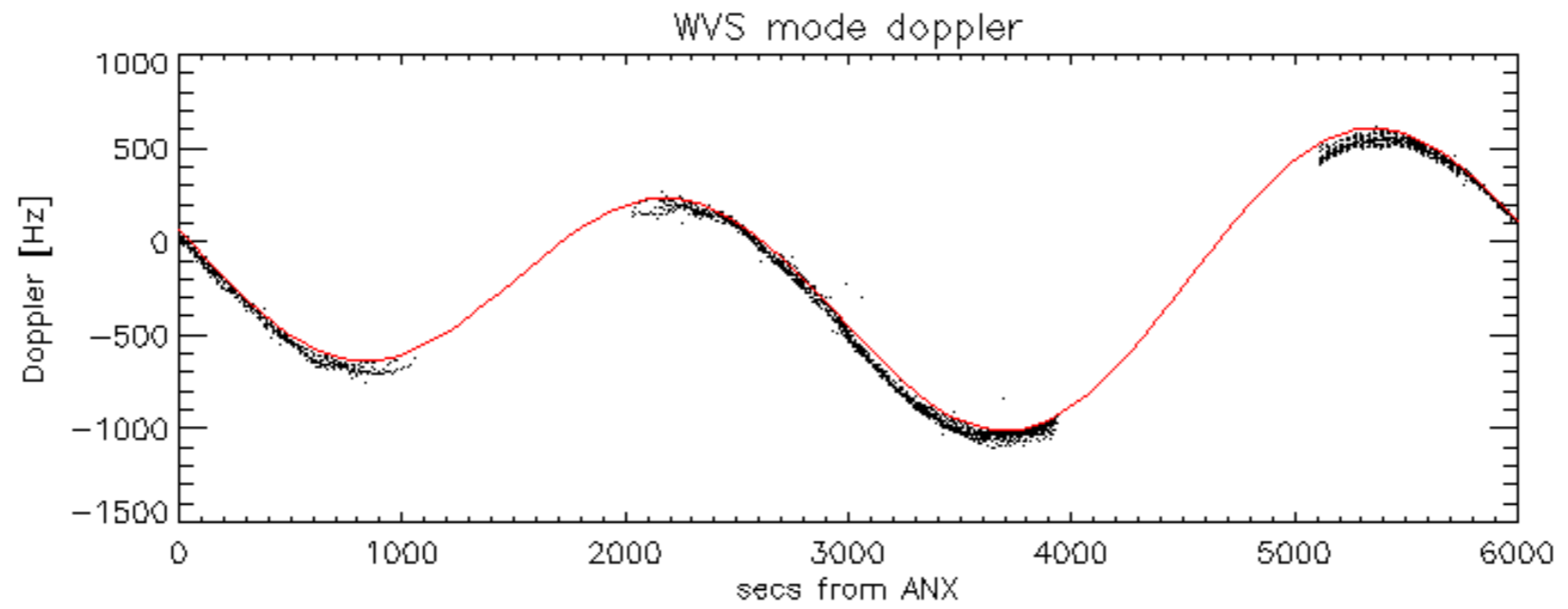
Doppler 'WVS' 'IS2' ascending



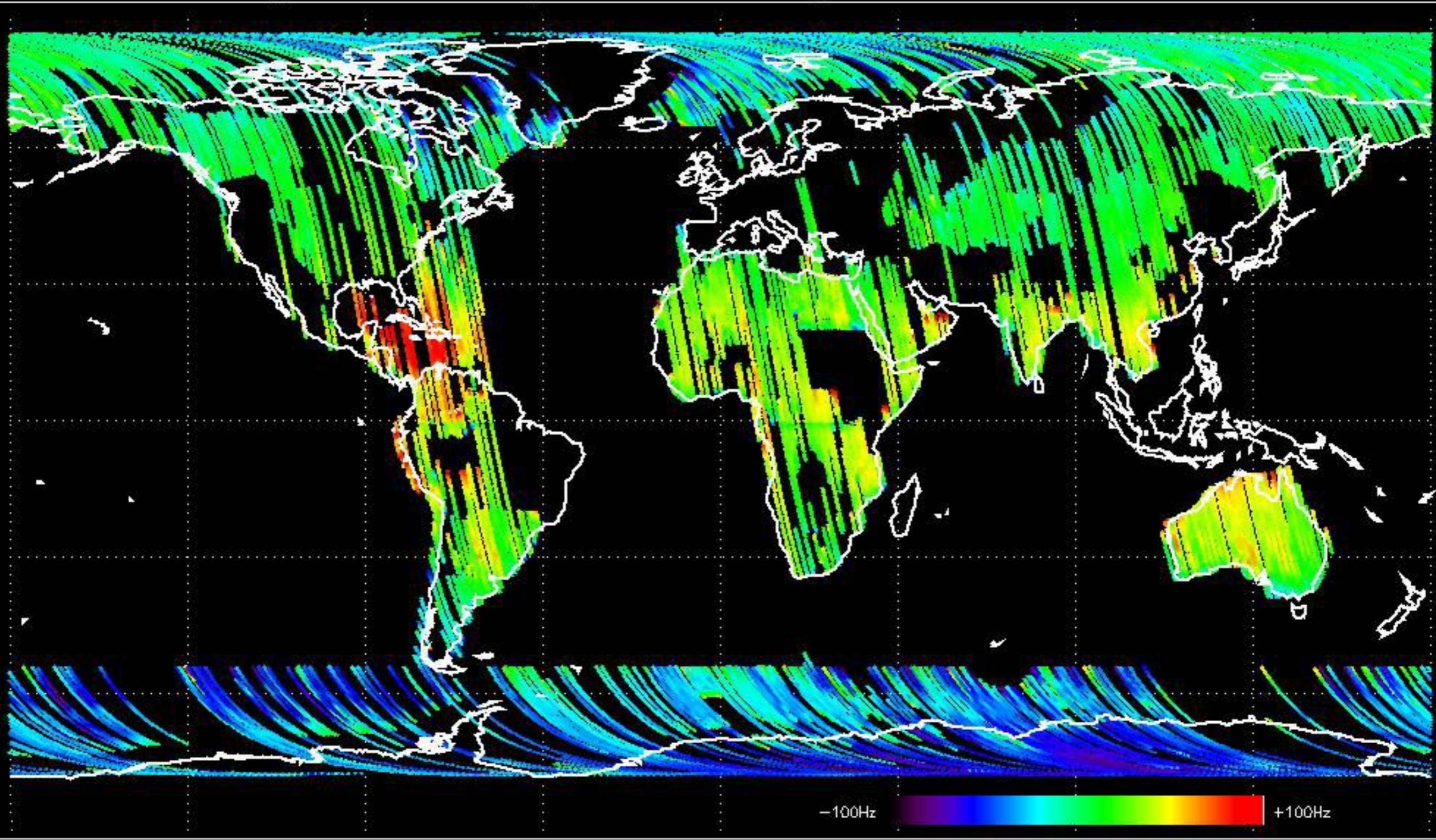
Doppler 'WVS' 'IS2' descending





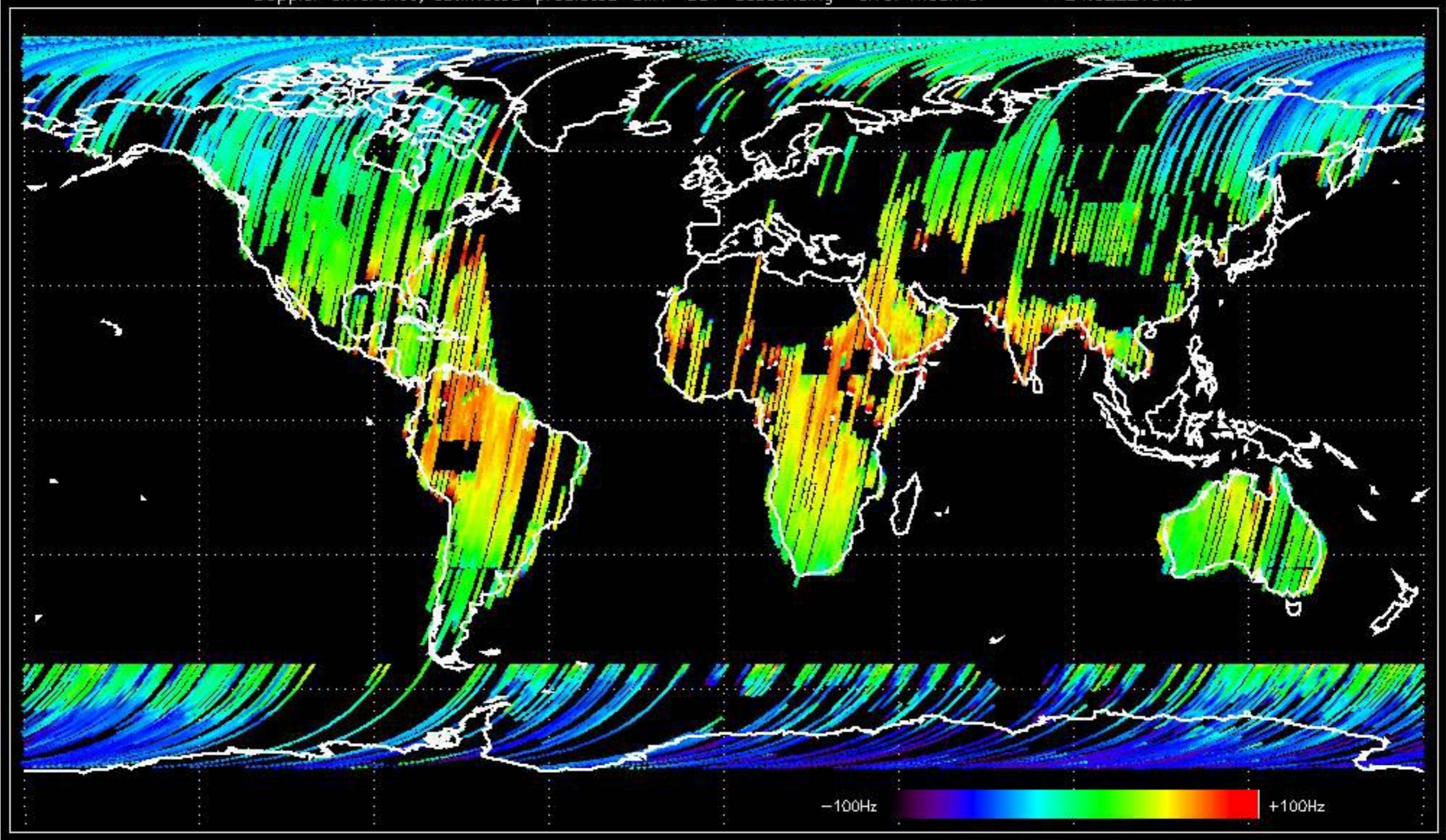


Doppler difference, estimated-predicted 'GM1' 'SS1' ascending -error mean of -33.168676 Hz

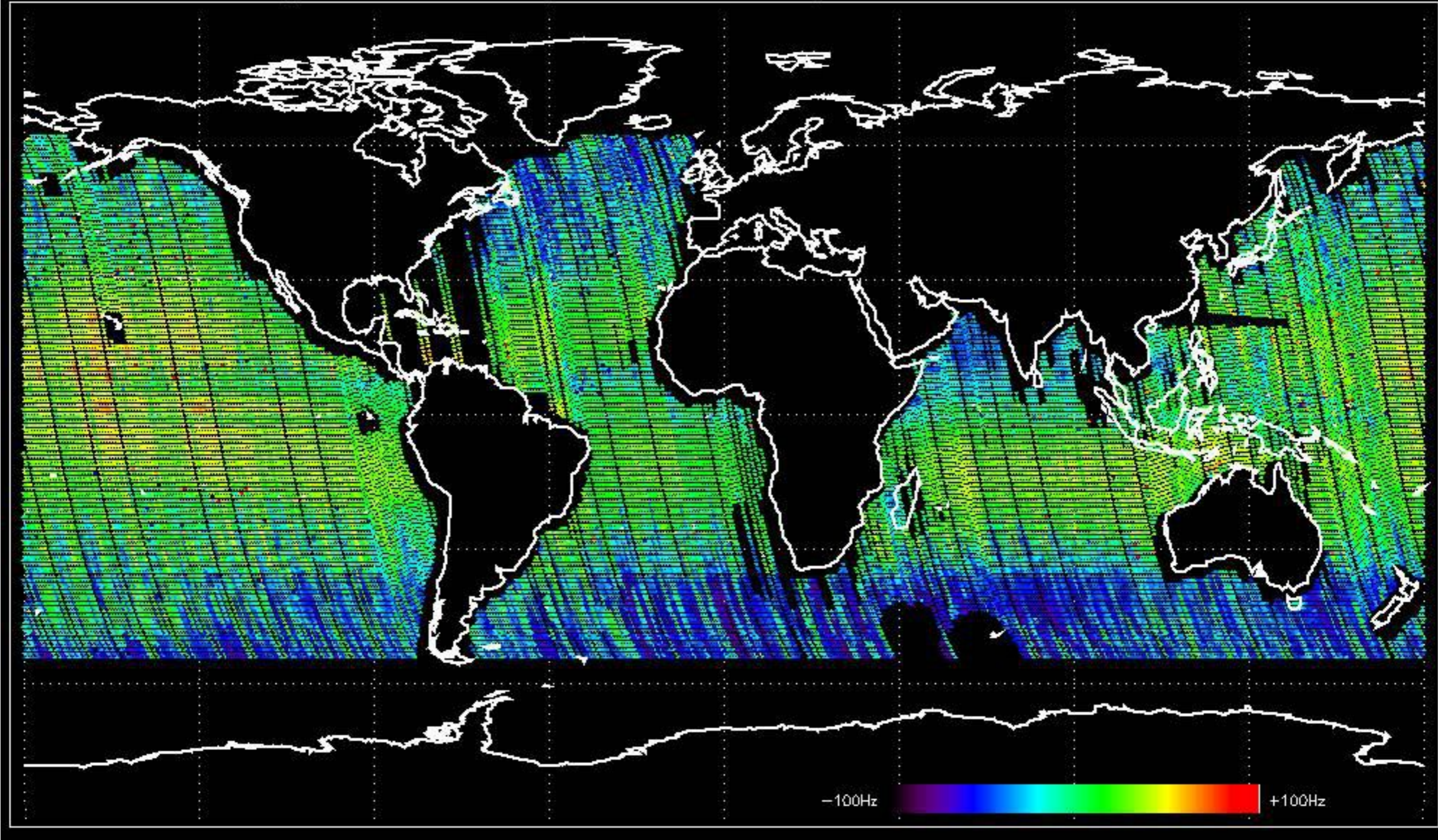


-100Hz +100Hz

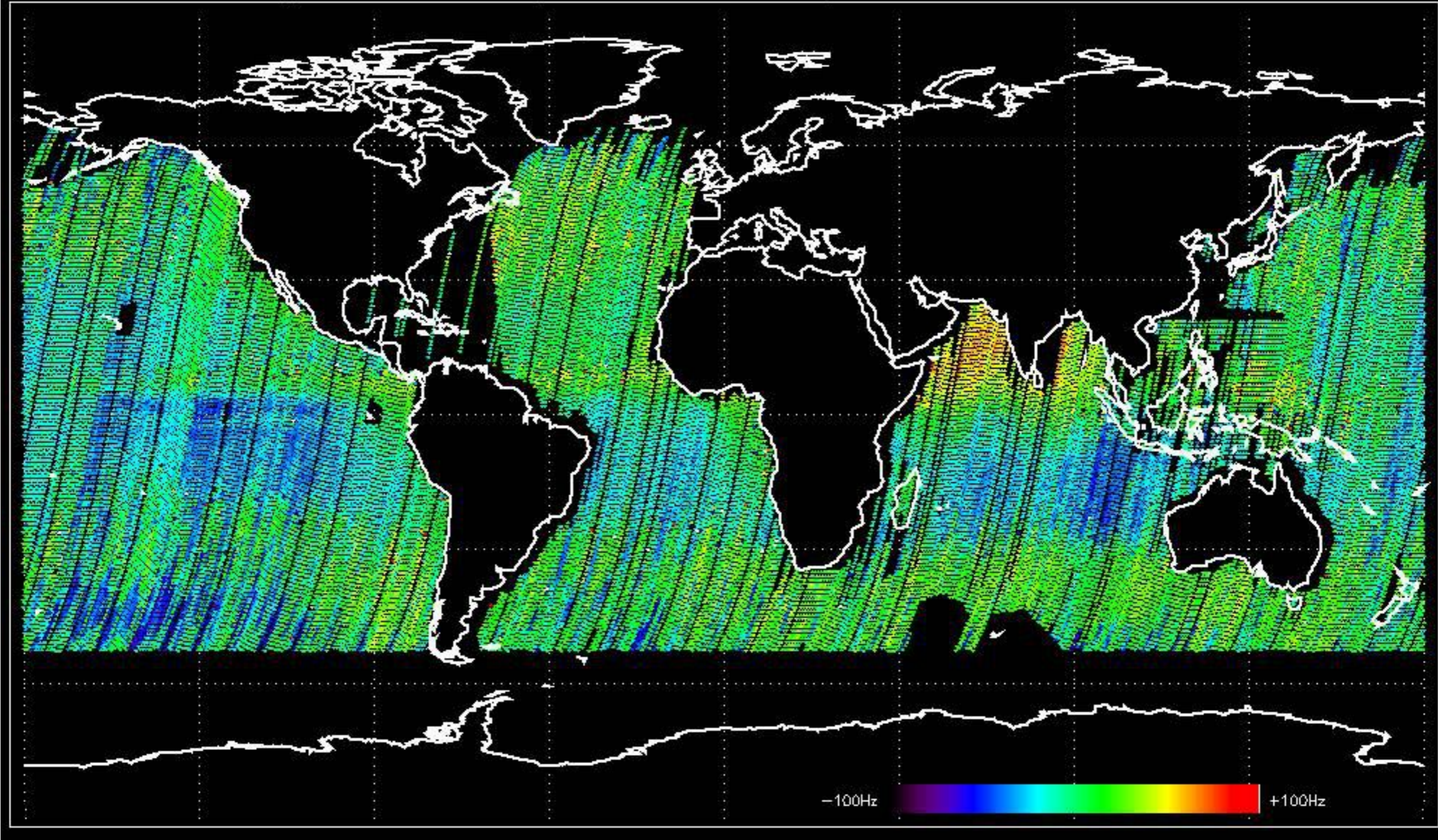
Doppler difference, estimated-predicted 'GM1' 'SS1' descending -error mean of -24.622210 Hz



Doppler difference, estimated-predicted 'WVS' 'IS2' ascending -error mean of -33.727890 Hz

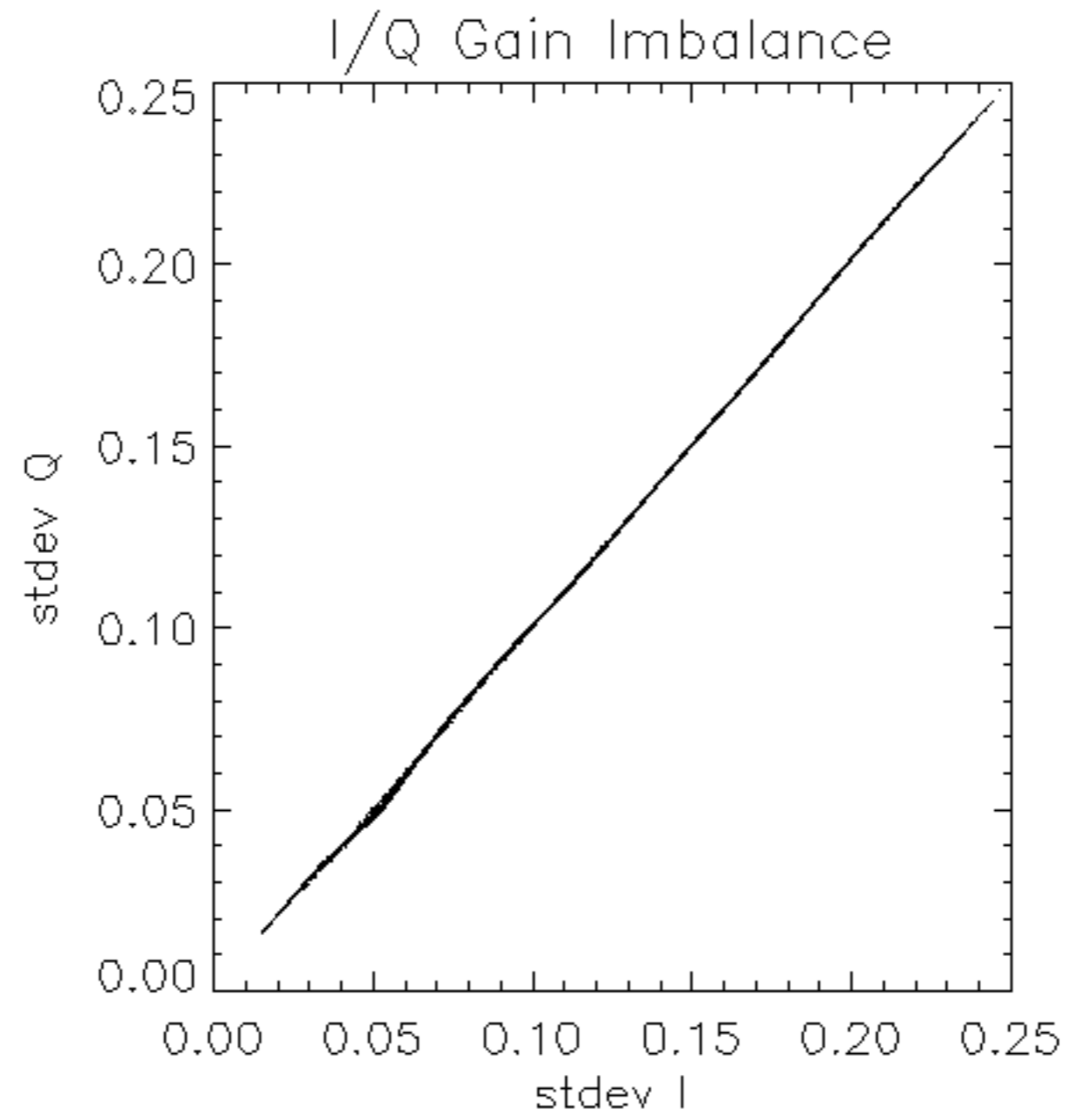


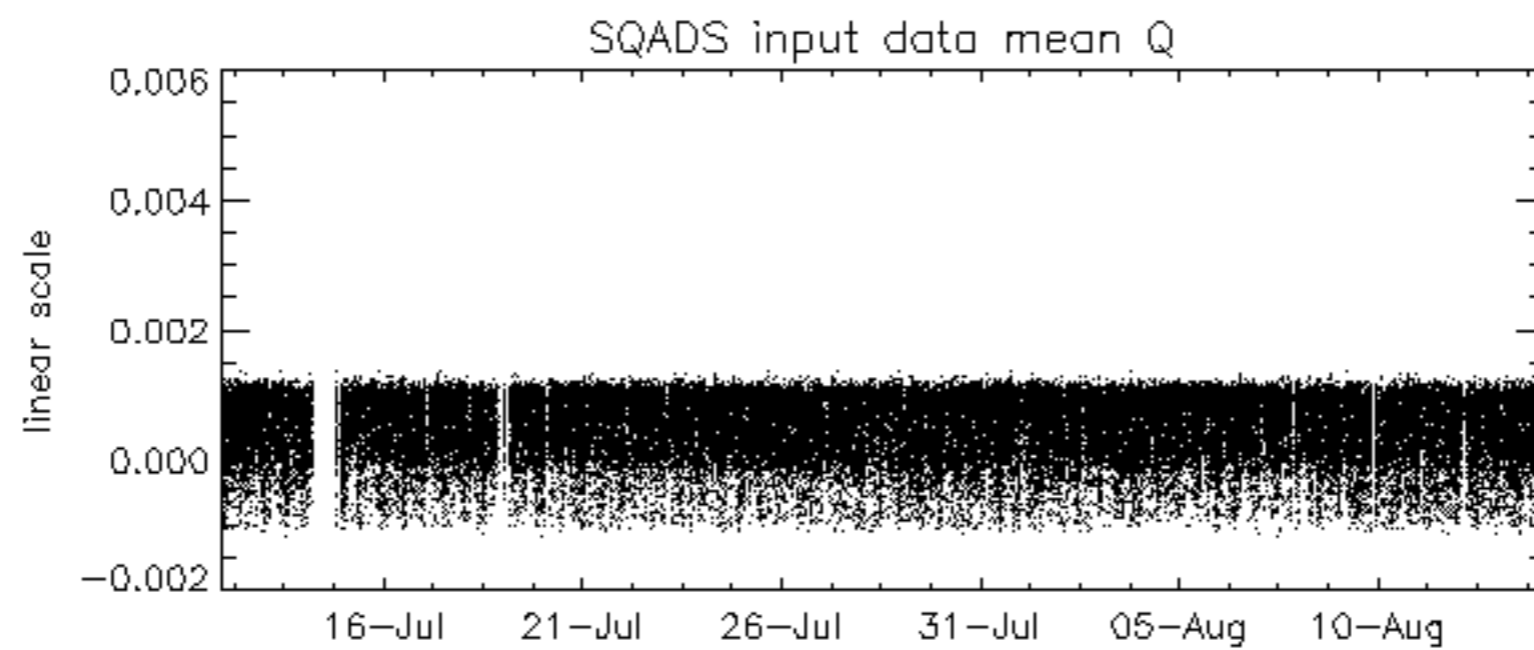
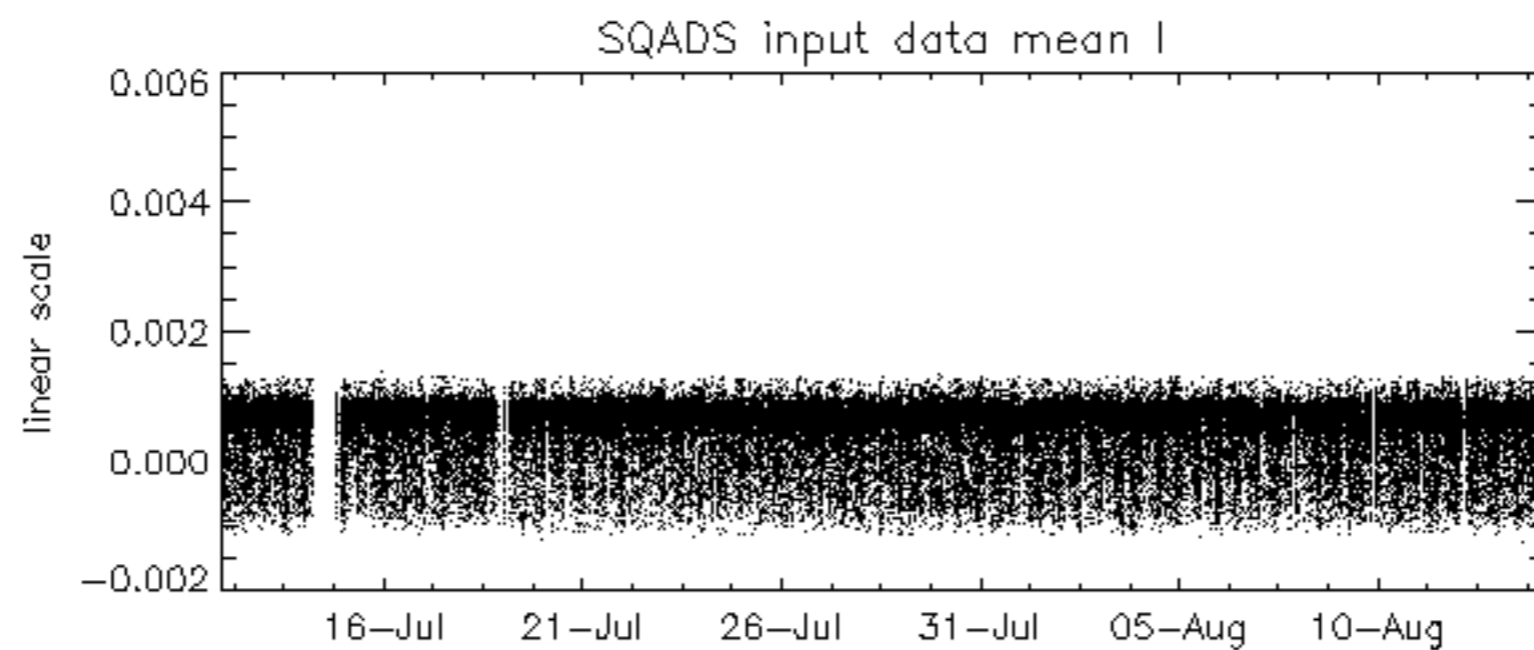
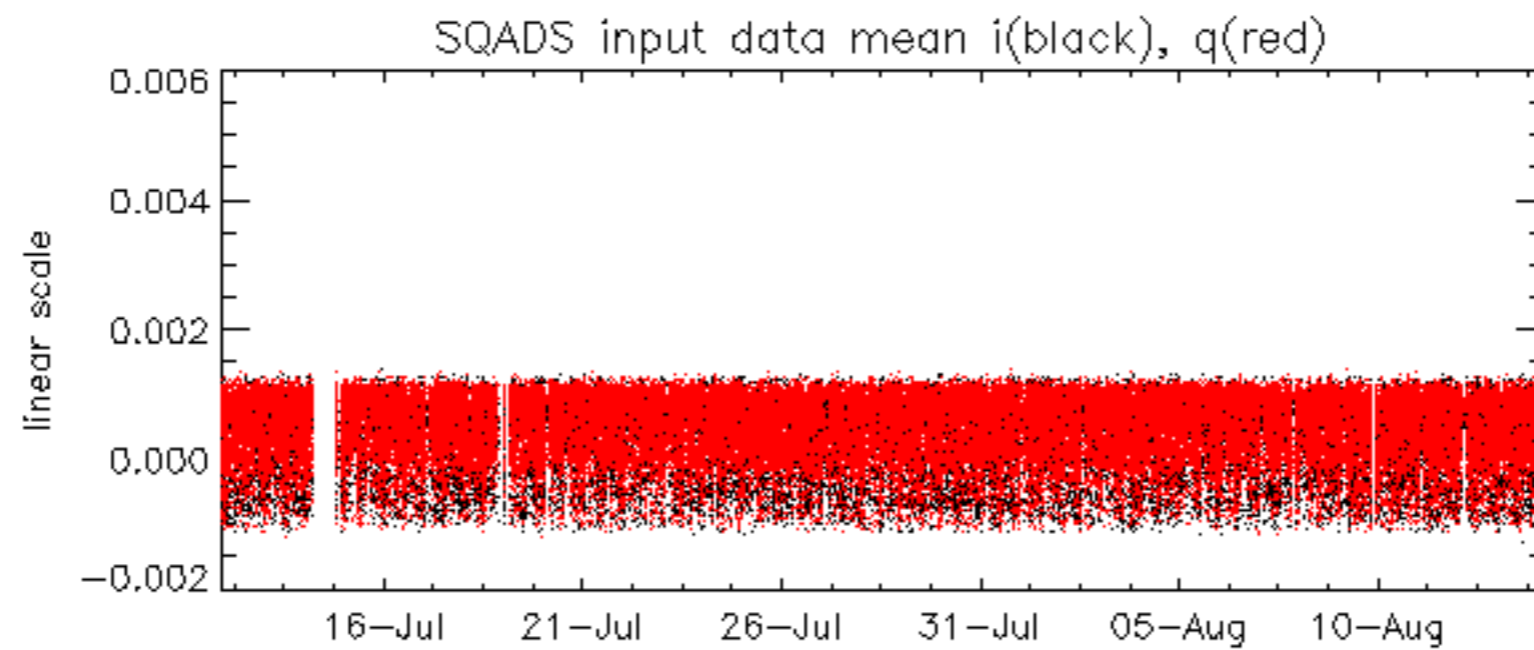
Doppler difference, estimated-predicted 'WVS' 'IS2' descending -error mean of -36.425384 Hz

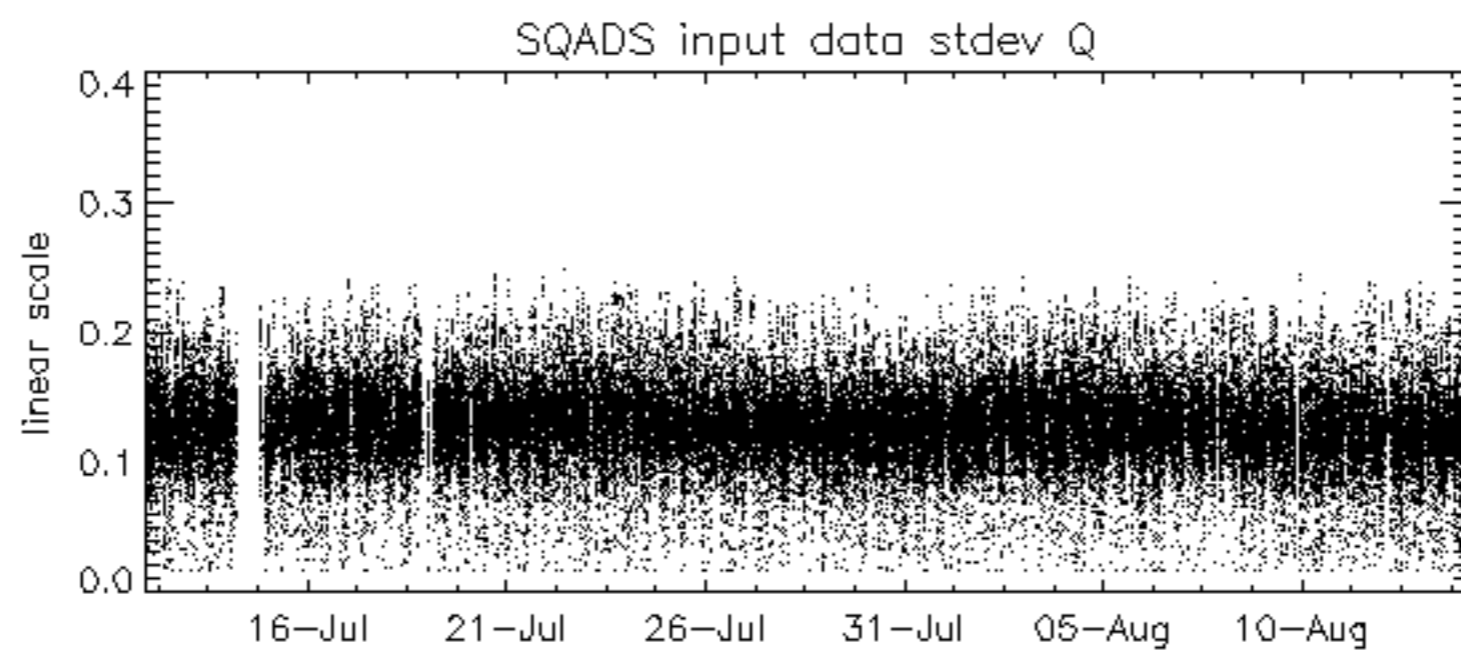
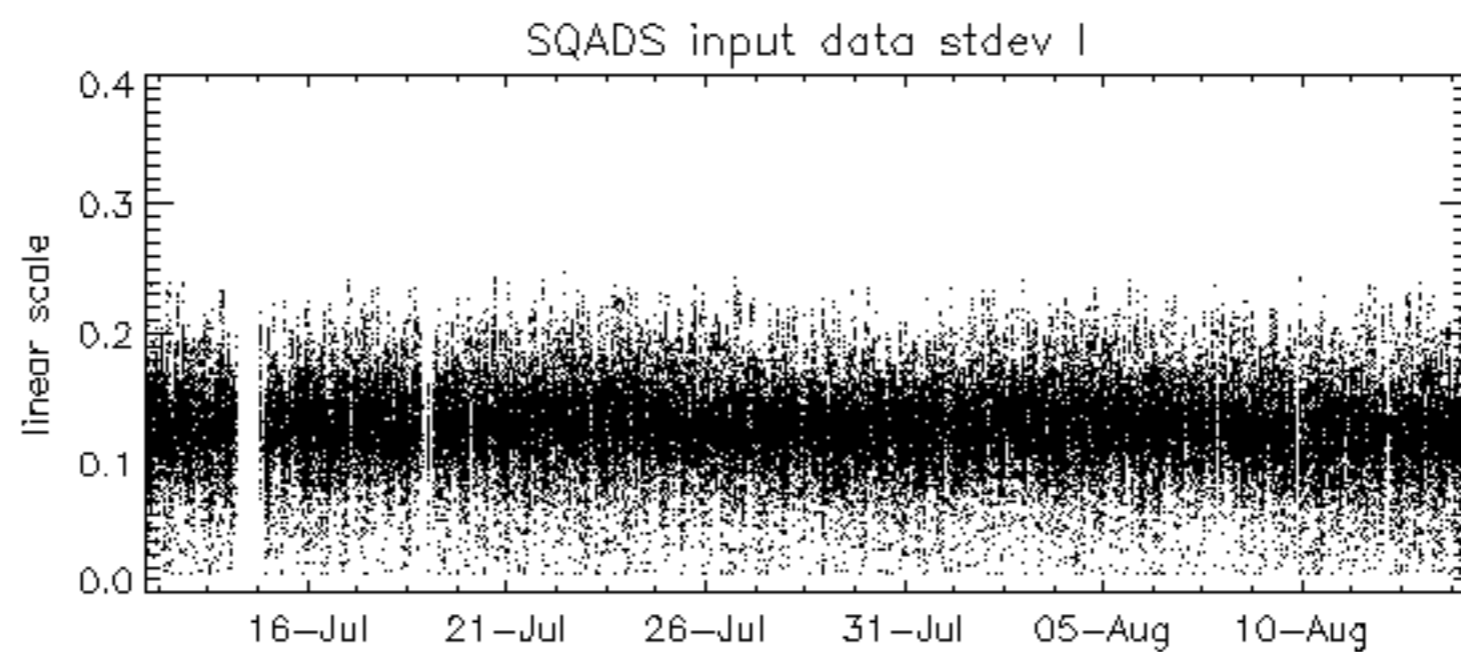
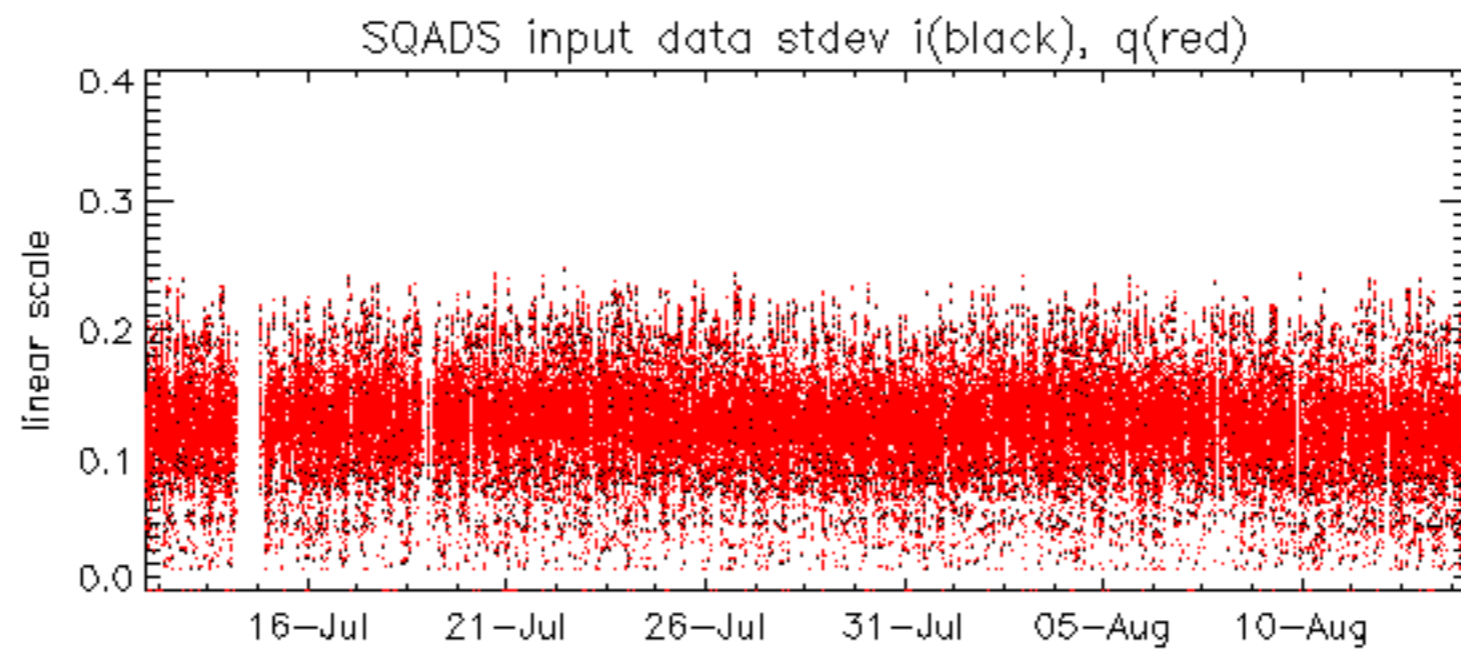


No anomalies observed on available MS products:

No anomalies observed.



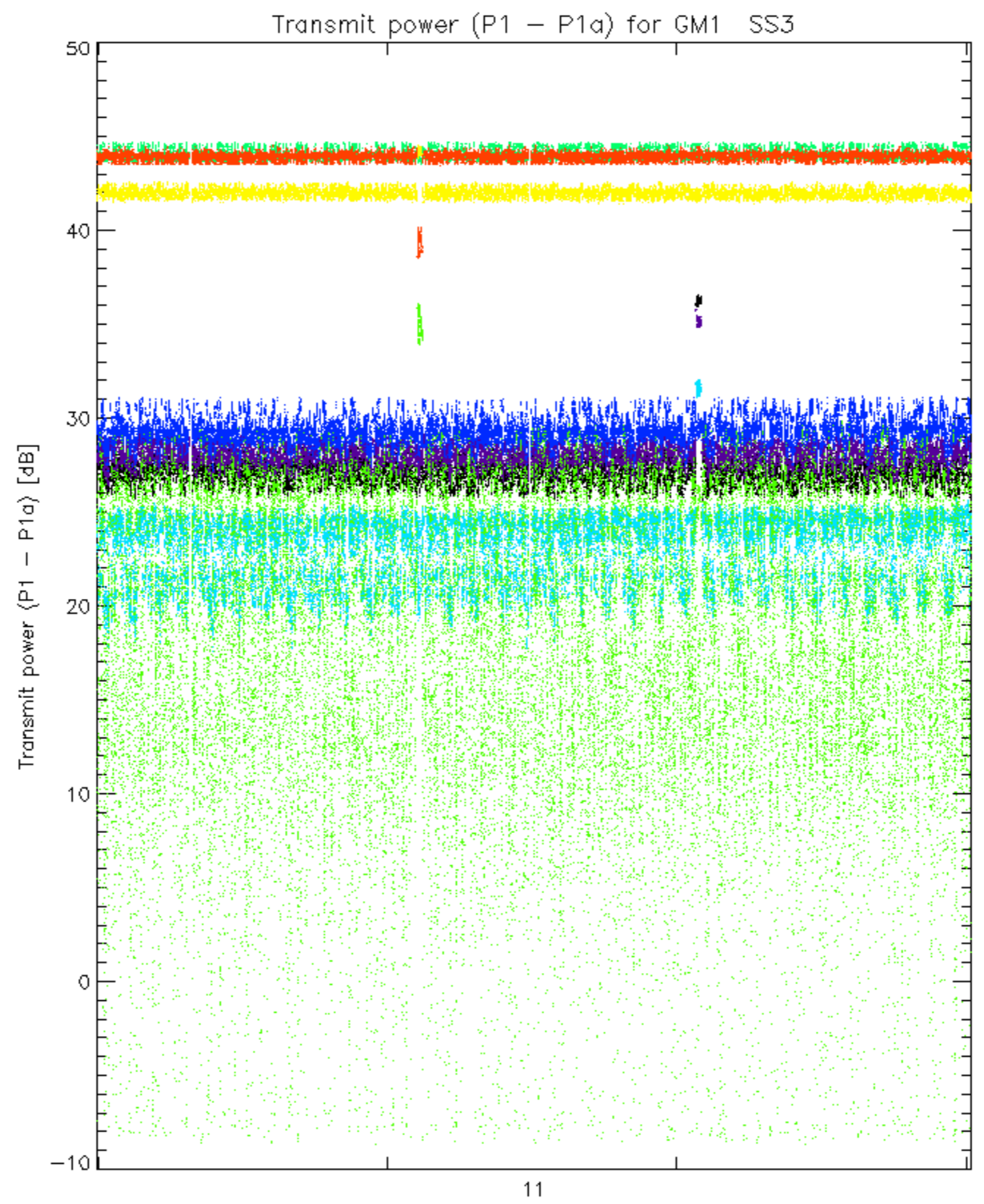




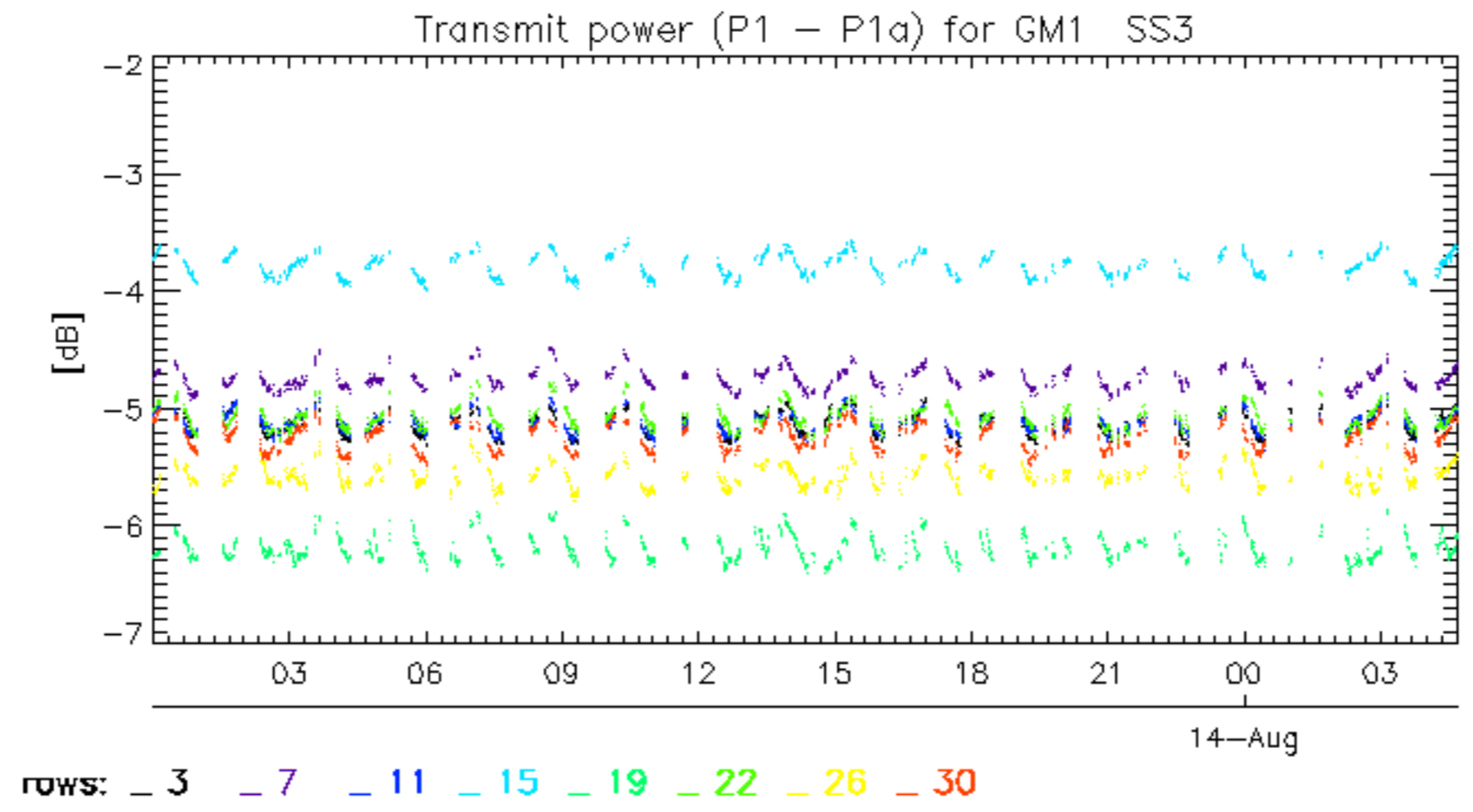
Summary of analysis for the last 3 days 2005081[234]

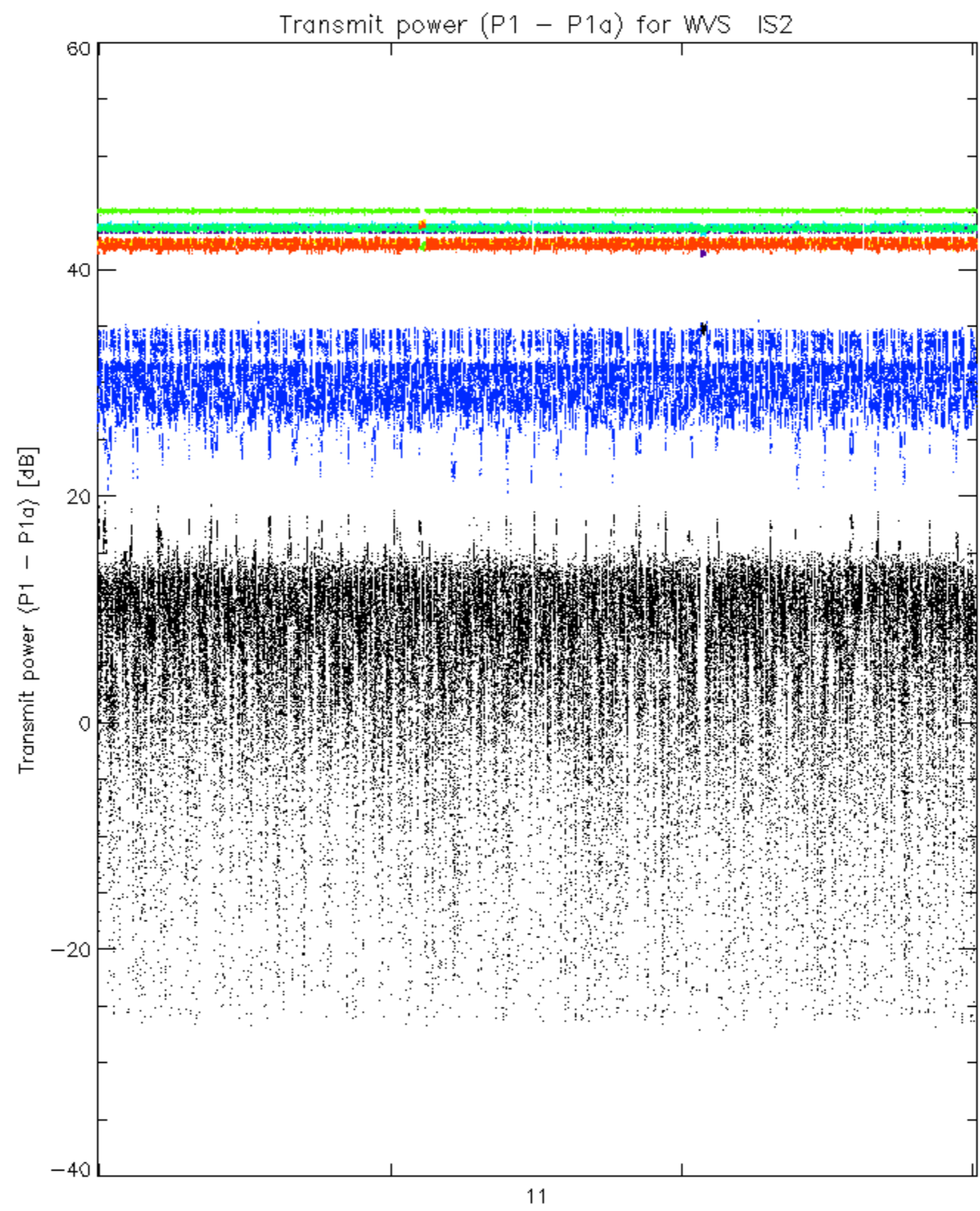
The assumption is taken that the SQADS num_gaps and num_missing_lines fields are reliable indicators of telemetry problems

Filename	num_gaps	num_missing_lines
ASA_IMM_1PNPDE20050812_004347_000001572039_00446_18035_2259.N1	1	0
ASA_WSM_1PNPDE20050812_014214_000000612039_00446_18035_4254.N1	0	1
ASA_WSM_1PNPDE20050813_162408_000000912039_00470_18059_4387.N1	0	42

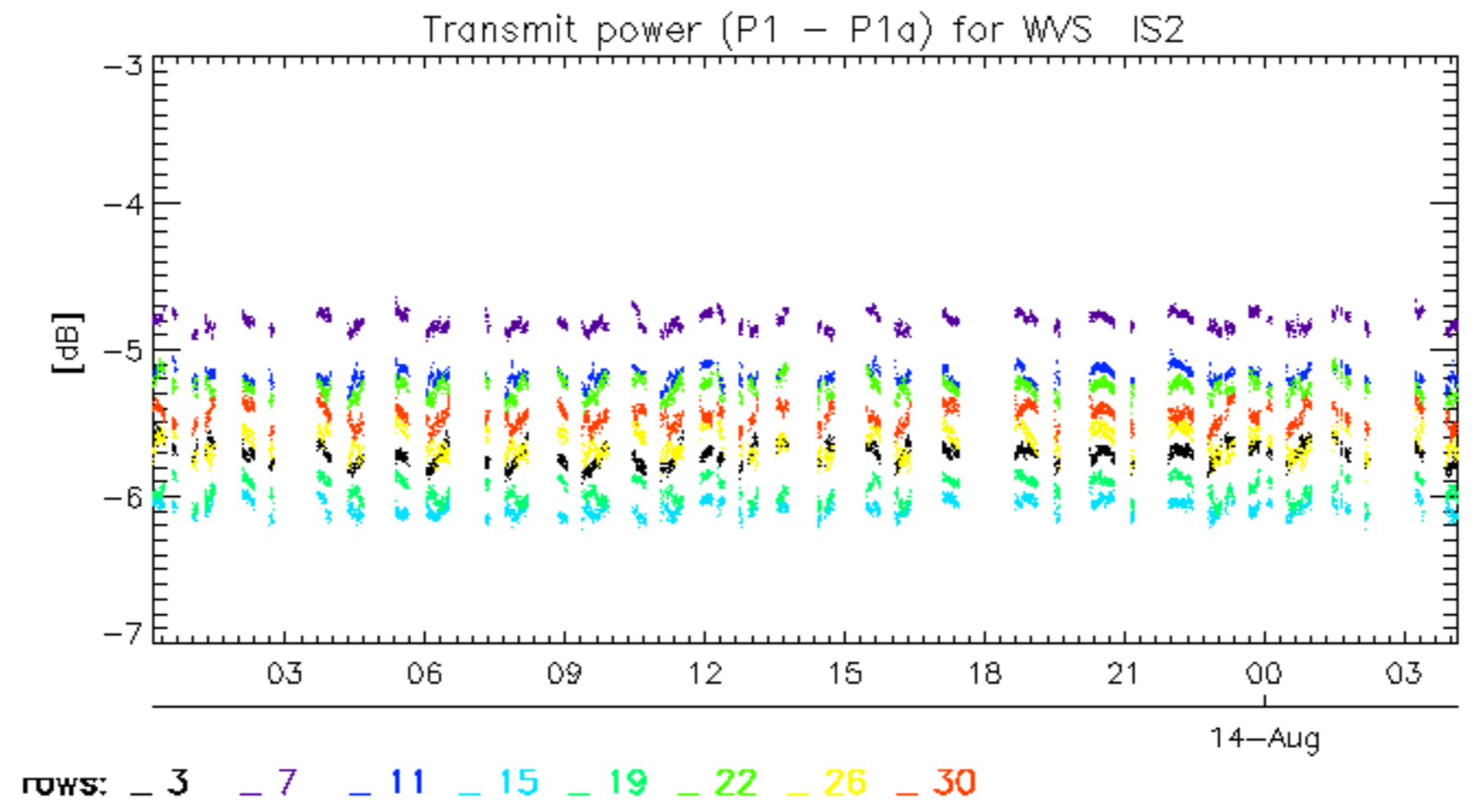


rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30





rows: _ 3 _ 7 _ 11 _ 15 _ 19 _ 22 _ 26 _ 30



No unavailabilities during the reported period.